ECONSTOR
Make Your Publications Visible.

A Service of
ZBW
Leibniz-Informationszentrum Wirtschaft
Leibniz Information Centre for Economics

Berlemann, Michael; Christmann, Robin

Conference Paper

Determinants of In-Court Settlements: Empirical Evidence from a German Trial Court

Beiträge zur Jahrestagung des Ausschusses für Wirtschaftssysteme und Institutionenökonomik im Verein für Socialpolitik: "Governance in Politik und Wirtschaft", 11.-13. September 2016, Witten/Herdecke

Provided in Cooperation with:

Ausschuss für Wirtschaftssysteme und Institutionenökonomik, Verein für Socialpolitik

Suggested Citation: Berlemann, Michael; Christmann, Robin (2016) : Determinants of In-Court Settlements: Empirical Evidence from a German Trial Court, Beiträge zur Jahrestagung des Ausschusses für Wirtschaftssysteme und Institutionenökonomik im Verein für Socialpolitik: "Governance in Politik und Wirtschaft", 11.-13. September 2016, Witten/Herdecke, Verein für Socialpolitik, Ausschuss für Wirtschaftssysteme und Institutionenökonomik, Münster

This Version is available at:
https://hdl.handle.net/10419/175188

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

WWW.ECONSTOR.EU

Mitglied der Leibniz-Gemeinschaft

Diskussionspapierreihe
Working Paper Series

Helmut Schmidt Universität
Universität der Bundeswehr Hamburg

Determinants of In-Court Settlements

Empirical Evidence from a German Trial Court

Michael Berlemann
Robin Christmann

No. 155
December 2014

Department of Economics
Fächergruppe Volkswirtschaftslehre

Autoren / Authors

Michael Berlemann
Helmut Schmidt Universität Hamburg
Professur für Politische Ökonomik und Empirische Wirtschaftsforschung
Holstenhofweg 85, 22043 Hamburg
Germany
Michael.Berlemann@hsu-hh.de

Robin Christmann
Helmut Schmidt Universität Hamburg
Professur für Politische Ökonomik und Empirische Wirtschaftsforschung
Holstenhofweg 85, 22043 Hamburg
Germany
christmann@hsu-hh.de

Redaktion / Editors
Helmut Schmidt Universität Hamburg / Helmut Schmidt University Hamburg
Fächergruppe Volkswirtschaftslehre / Department of Economics

Eine elektronische Version des Diskussionspapiers ist auf folgender Internetseite zu finden / An electronic version of the paper may be downloaded from the homepage:

http://fgvwl.hsu-hh.de/wp-vwl

Koordinator / Coordinator
Klaus B. Beckmann
wp-vwl@hsu-hh.de

Helmut Schmidt Universität Hamburg / Helmut Schmidt University Hamburg
Fächergruppe Volkswirtschaftslehre / Department of Economics
Diskussionspapier Nr. 155
Working Paper No. 155

Determinants of In-Court Settlements
Empirical Evidence from a German Trial Court

Michael Berlemann

Robin Christmann

Zusammenfassung / Abstract

Because verdicts are typically the more costly resolution of legal disputes, most governments are interested in high settlement rates. In this paper, we use a unique dataset of 860 case records from a German trial court to explore which factors have a significant impact on the decision to settle in civil law litigation. We find that case-specific factors, procedural aspects and individual characteristics of the involved judge have a significant impact on settlement probability. Interestingly, we find supporting evidence for the hypothesis that the gender of the involved judge has an impact on settlement probabilities in certain subfields of law. Based on our empirical results, we derive some conclusions for legal policies that aim at increasing settlement rates.

JEL-Klassifikation / JEL-Classification: K10, K41, C78, J16

Schlagworte / Keywords: settlement rate, judge, mediation, bargaining, procedural rules, gender effects

1. Introduction

"Upon the strong advice of the court and in order to avoid further and substantial litigation costs, the parties hereby agree [...]" - phrasing in judicial decree

One of the major tasks of legal systems is to resolve legal disputes. A significant share of these disputes is resolved by adjudicators via court decisions. However, many legal disputes never reach the final stage of the litigation process but are successfully settled through court proceedings. Litigants often prefer to negotiate agreements because these shorten legal procedures, resolve uncertainty and save litigation expenses.

However, not only litigants are interested in reaching settlements. The state as the financer of the legal institutions is also interested in agreements between the litigants because extensive court proceedings and written verdicts cost more than early settlements. Although court fees contribute to financing legal institutions, they are typically insufficient to cover the entire costs of operating legal institutions. Because taxpayers must cover the remaining costs, policymakers around the globe are interested in designing legal systems that promote early settlements. As an example, the U.S. COMMITTEE ON RULES OF PRACTICE AND PROCEDURE (1982, p. 19) suggests that "settlement should be facilitated at as early a stage of the litigation as possible" because it "results in savings to the litigants and the judicial system". Even more pronounced, the MINISTRY OF JUSTICE (2010, p. 1) of the United Kingdom states: "the intended outcome [of its legal policy] is earlier settlements at reasonable levels of damages and reduced costs". The German government explicitly expressed its dissatisfaction with the prevailing low settlement rates in civil litigation and repeatedly amended German civil process law in order to promote amicable agreements (BUNDESTAG, 2000, pp. 58).

Currently, many countries have adopted laws and statutes that aim to foster the negotiation of settlements and to make reasonable settlement offers more appealing to the litigants. Many national procedural laws were amended to allow for pretrial conferences, e.g., the U.S. *Federal Rules of Civil Procedure* (FRCP) Rule 16 and the German § 278 *Zivilprozessordnung* (ZPO), both of which aim at facilitating negotiations. The German

procedural rule explicitly advises judges to consider settlements and enables the adjudicator to actively propose settlement offers during proceedings. In the U.K., *Civil Procedure Rules* (CPR) Part 36 incentivizes parties to make settlement offers. Under a Part 36 offer, litigants who refuse settlement proposals but fail to reach better results under subsequent court rulings face additional cost penalties. In a comparable approach, the *Civil Dispute Resolution Act* enables Australian courts to exercise discretion in awarding costs to parties who did not take genuine steps to resolve the dispute before trial. To further reduce legal costs and promote settlements, the European Union enacted Directive 2008/52/EC, which institutionalizes judicial and extrajudicial mediation in its member states.

To be able to construct legal systems that facilitate early settlements of legal disputes, it is necessary to identify the factors that have a significant impact on settlement probability.[1] However, little empirical knowledge is available on this issue as yet. A major reason for the scarcity of empirical evidence on the determinants of settlement probability is that suitable data to study this issue are often unavailable. Databases on verdicts are often available; however, according to the well-established *Case Selection Hypothesis* put forward by PRIEST and KLEIN (1984), verdicts (and thus settlements) are not a random draw from the pool of all legal disputes. Empirical evidence that is solely based on verdict databases is thus likely biased. To gain unbiased evidence on the determinants of settlement probability, a random sample of legal disputes that contains both court decisions and settlements is necessary. However, these types of data are mostly unavailable as yet.

In this paper, we contribute to filling the described gap in the literature. Using a novel, hand-collected dataset consisting of 860 case records from a German trial court, we employ the logit regression technique to identify factors that influence the probability of

[1] Note that we do not argue that promoting settlements is in fact always socially efficient. For critical assessments of settlements and judicial discretion to achieve them, see, e.g., RESNIK (2002), KOCKESEN and USMAN (2012) and CHRISTMANN (2013).

in-trial agreements between the involved litigants. As a consequence of the available data, we primarily focus on three categories of factors. First, we study various case-specific factors, such as case complexity or the relevant field of law. Second, we examine the judge´s role in facilitating settlements and study the factors that proxy for the involved judges' skills. In light of the growing literature on gender-related effects in negotiating and bargaining (see, e.g., KRAY and THOMPSON 2004, CROSSON and GNEEZY 2009 or KOROKBIN and DOHERTY 2009), we also consider the genders of the involved judges. Third, we analyze how procedural aspects affect settlements.

The remainder of the paper is structured as follows: Section 2 reviews the related literature. Section 3 introduces and summarizes the dataset. In section 4, we report the empirical results of our analysis of the determinants of in-court settlement probability. Section 5 reassesses the role of gender issues in settlement capabilities. Finally, section 6 summarizes the main results and draws some conclusions. We especially discuss the implications of our results for policymakers.

2. Related Literature

The question of which factors determine whether a trial is resolved by settlement or by verdict has always been of major interest to law and economics scholars. Whenever verdicts are associated with significant legal costs for both involved parties, as is typical in many legal systems (e.g., the United States), one might expect that legal disputes are always solved by settlement. The early, mostly theoretical literature in this field predominantly focused on explaining why a significant share of all trials ended with verdicts rather than being settled at earlier stages.

The first theoretical papers concerned with explaining why not all legal disputes are settled were authored by LANDES (1971), POSNER (1973) and GOULD (1973). Building on the insights from this literature, SHAVELL (1982, 1995) developed a standard model of suit and settlement that concluded that settlements typically occur whenever (i) both parties

have the same expectations about the trial outcome, (ii) the parties are risk-neutral or even risk-averse, (iii) both parties have symmetrical stakes and (iv) the parties refrain from strategic behavior in the bargaining process.[2] Subsequent theoretical work analyzed the consequences of violating these requirements.[3] Although the theoretical literature provides important insights that contribute to deepening our understanding of (the outcomes of) judicial trials, it does not allow us to judge which factors play the most important roles in promoting settlements because factors such as expectations of process outcome and informational asymmetries are hardly observable.

Most of the existing empirical literature on the determinants of settlements evolved in the context of discussing the earlier mentioned *Case Selection Hypothesis.* According to this hypothesis, verdicts are not a random draw from the pool of all legal disputes (PRIEST and KLEIN 1984). As a consequence, empirical evidence based on case statistics and published verdicts provides only "a distorted window into people´s behavior in response to legal rules" (LEDERMAN 1999, p. 317). Under certain conditions (e.g., both parties have the same stakes), the *Case Selection Hypothesis* suggests that we should observe that in reality, plaintiffs and defendants win trials with a probability of 50 percent each (EISENBERG 1990).[4] Although many attempts were made to test the Fifty Percent

---

[2] Note that LANDES (1971), POSNER (1973) and GOULD (1973) explicitly considered the assumptions which form the basis for the analysis of SHAVELL (1982, 1995). For example, LANDES (1971, pp. 67) and POSNER (1973, pp. 417) discuss, among other factors, the interdependency between the parties´ stakes, outcome expectations and attitudes towards risk. POSNER (1973, Fn. 27) is also aware of the negative implications of strategic behavior for bargaining. See LEDERMAN (1999, pp. 318-321) for a synopsis of the basic assumptions.

[3] The most substantial literature evolved for the field of asymmetric information, see, for example, BEBCHUCK (1984), CHOPARD, CORTADE and LANGLAIS (2010), FARMER and PECORINO (2014), DAUGHETY and REINGANUM (2014) and for discovery procedures SOBEL (1989), COOTER and RUBINFELD (1994), MNOOKIN and WILSON (1998), FARMER and PECORINO (2005). COOTER, MARKS and MNOOKIN (1982), CHE and SPIER (2008), JEITSCHKO and KIM (2012) and BOYD and HOFFMAN (2012) further study how litigants make best use of different strategies to obtain a higher bargaining rent while REINGANUM and WILDE (1986), HUGHES and SNYDER (1995), CHEN and WANG (2006) assess the impact of cost-shifting rules on party expectations and the probability of trial.

[4] Note that the Fifty Percent Hypothesis has been debated intensively in the past. See, for example, WITTMANN (1985) and the response of PRIEST (1985).

Hypothesis empirically,[5] most of the related literature delivered little insight into how cases that go to trial actually differ from those that are successfully settled.[6] Two remarkable exceptions in this aspect are the studies by LEDERMAN (1999) and by EISENBERG and LANVERS (2009), which shall be described in more detail in the following.

LEDERMAN (1999) examines a sample of 400 U.S. tax court cases. Because her sample contained both tried and settled cases, she did not have to rely on testing the rather indirect Fifty Percent Hypothesis. Instead, she studied whether the characteristics of cases that were settled differed significantly from those that were decided by a judge. In fact, she identifies significant differences between settled and tried cases, thereby confirming the *Case Selection Hypothesis*. However, based on a number of logit regressions, she also identifies a number of factors that have a significant impact on the probability of cases being tried. It appears that cases were more likely to be tried for higher disputed values (stakes) and when the taxpayer filed pretrial administrative appeals. LEDERMAN (1999) also provides evidence in favor of the hypothesis that characteristics of the judge play a decisive role in determining whether a trial ends with a verdict. However, as the author herself claims, the identified trial predictors can hardly be generalized to other fields of law because tax cases differ substantially from civil law.[7]

EISENBERG and LANVERS (2009) study settlement rates in two U.S. districts based on the available data on 3,300 proceedings. Without full access to the case records, the authors used docket sheet information from each case to reasonably distinguish between

---

[5] See, e.g., GROSS and SYVERUD (1991), WALDFOGEL (1995), and KESSLER, MEITES and MILLER (1996).

[6] At least to some extent, PRIEST and KLEIN (1984, pp. 6-8) follow the traditional concepts: they assume that only damages are disputed, parties have the same stakes in litigation and do not behave strategically. Party expectations are assumed to be unbiased and accurate on average. The authors explain significant deviations from the predicted fifty percent plaintiff victory rates in other studies through violations of these assumptions (PRIEST and KLEIN 1984, pp. 52-54).

[7] Note that tax court disputes always involve a state agency and a private party. While the state agency is regularly involved in tax disputes, this typically holds not true for the involved taxpayer. Moreover, risk preference and litigation stakes likely vary significantly from other proceedings.

trials and settlements. Different from LEDERMAN (1999), EISENBERG and LANVERS (2009) refrain from studying the determinants of verdicts but calculate settlement rates for different districts and case categories, such as tort law or employment discrimination. They find that settlement rates vary significantly between districts. However, they also present empirical evidence in favor of the hypothesis that settlements occur in the various subfields of law with differing probabilities. In particular, tort law cases were settled significantly more often relative to the reference category of contract law.

There is also a growing literature that addresses the question of whether gender matters in bargaining situations.[8] However, only a few studies are concerned with gender effects in the context of bargaining situations that are moderated by an arbitrator; the existing studies are mostly related to Alternative Dispute Resolution (ADR) programs. COBBMEDIATION (2008) examines the impact of mediators´ gender and popularity on negotiation outcomes. Based on a sample of 578 cases, the authors find a considerably higher settlement rate for female mediators and suggest that female mediators have higher skills in solving conflicts in long-term relationships, which accounted for a large portion of the studied cases. The studies by KULIK et AL. (2003) and MAXWELL (1992) find no empirical evidence in favor of the hypothesis that female mediators are more effective in achieving settlements. However, MAXWELL (1992) reports that agreements were ultimately more binding when they were negotiated by a female arbitrator. In contrast with the aforementioned studies, PERESIE (2005) is directly concerned with judges. However, she does not focus on settlement negotiations but instead analyzed how the presence of female judges on appellate court panels affects collegial decision-making in sexual harassment and sex discrimination cases. PERESIE (2005) shows that plaintiffs were significantly more likely to win when there was a female judge on the panel. She

[8] Most gender-specific literature in bargaining situations focuses on either wage negotiations (see, e.g., BOWLES, BABCOCK and LAI 2007) or conflict management in organizations (see e.g. PRADEL, BOWLES and MCGINN 2006 or BENHARDA, BRETT and LEMPEREUR 2013).

speculates that female judges tend to express pro-plaintiff preferences in such cases and to eventually persuade their male colleagues.

3. Data

Our empirical analysis is based on legal proceedings in an intermediate German trial court (*Amtsgericht*) in Hamburg and consists of a random sample of 2,360 case records that originate from 2009.[9] As many as 689 cases in our sample (37 percent) were resolved with a default judgment because one of the two parties failed to appear in court. In 173 cases, the defendant recognized the plaintiff´s claim. The claim was abandoned by the plaintiff in 24 percent of the cases because the suit was unsubstantiated or the parties successfully resolved the dispute without further court action. In a small number of cases (3 percent), the lawsuit aimed at a preliminary injunction. The remaining 860 cases led to court proceedings. In 279 of these cases, the parties eventually established an in-court settlement under the judge´s supervision and the dispute was resolved. In the remaining 581 cases (25 percent), the court had to promulgate a first-instance decision. Out of 377 appealable verdicts, however, 139 trial court decisions were later appealed, and the legal proceedings continued in a higher court (*Landgericht*).[10]

Our estimates are based on the 860 observations of legal proceedings that required court action for resolution by either court ruling or in-court settlement. The respective

[9] Case records are stored in the first-instance court where they were originally processed. However, files are transferred to the higher-instance courts upon appeals, and only returned after a final decision. We used the sample year for which the court´s case records are most complete. We successfully analyzed 2,360 case files while 188 files were missing and could not be obtained. Reasons for missing files could be ongoing appeals, unrecorded removal by a judge, wrong numbering or wrong stacking in the court´s archive.

[10] According to the German Civil Process Order (§511 ZPO), a first-instance court decision can only be appealed if one party is burdened by the verdict with more than 600 EUR or the first-instance courts declares explicitly that the verdict is appealable.

outcome is captured by the binary dependent variable SETTLEMENT, which is defined as "1" whenever a settlement was achieved and "0" otherwise.

We consider three groups of predictor variables in our empirical approach (for some descriptive statistics, see Table 1).

The first group of predictors further describes the characteristics of the referring case. We distinguish between cases from the following fields of law by coding suitable dummy variables: contract law (L_CONTRACT), tort law (L_TORTS), tenancy law (L_TENANCY), traffic law (L_TRAFFIC) and other fields of law (L_OTHER).[11] In addition, we have information on whether advocates were involved in the case. The dummy P_ADVOCATE (D_ADVOCATE) describes whether the plaintiff (defendant) was supported by an advocate. We also know whether the plaintiff and/or the defendant is a firm or another type of organization. This information is captured by the dummy variables P_FIRM and D_FIRM. Furthermore, our dataset also includes information on the value of the matter in dispute (VALUE). Finally, we know how many pages of correspondence between the parties and the court were exchanged (CORRESPONDENCE), which is a good proxy for the level of aggressiveness with which the involved parties pursued their legal claims.

The second group of variables describes the characteristics of the judge who was concerned with the referring case. To control for judges´ experience and seniority, we include the judge's tenure in our analysis (TENURE). To control for qualification, we use a

[11] In order to compare our dataset to the study of EISENBERG and LANVERS (2009), we report the respective settlement rates for each case category in the Annex A1. Even though the settlement rates for all case categories vary around the average settlement rate, only traffic law (lower) and cases from other fields of law (higher) deviate distinctly. In contrast to EISENBERG and LANVERS (2009), tort law cases (including traffic law) even show a distinctly lower settlement rate in our sample than the reference of contract law. Although our findings cannot confirm the case hierarchy as proposed by this study, the concept of case categorization according to the fields of law proves to be substantial to account for the different characteristics of legal claims and their relevance to the litigants.

dummy variable for judges who hold a Ph.D. (PHD). Finally, we control for gender by coding a dummy variable for female judges (FEMALE).

The third group of variables is connected to procedural aspects. The dummy variable APPEALABLE captures whether the value in dispute exceeds the 600 € threshold for appealable verdicts.[12] The dummy variable ORAL reports whether at least one oral hearing between the involved parties took place.[13] We also control for the number of hearing days H_DAYS and the total duration of the legal case (DURATION).

[12] This threshold level results from § 511 ZPO (German Civil Process Law).

[13] Following § 128 ZPO (German Civil Process Law) oral proceedings are the legal standard. However, whenever the involved parties agree, the judge can proceed in written procedure.

Variable	Description	Mean	Median	Min	Max
SETTLEMENT (dummy)	Settlement is achieved	0.32			
case-specific:					
L_CONTRACT (dummy)	Case in the field of contract law	0.51			
L_TORTS (dummy)	Case in the field of tort law	0.04			
L_TENANCY (dummy)	Case in the field of tenancy law	0.24			
L_TRAFFIC (dummy)	Case in the field of traffic law	0.14			
L_OTHER	Case in another field of law	0.06			
P_ADVOCATE (dummy)	Plaintiff is represented by an advocate	0.92			
P_FIRM (dummy)	Plaintiff is a firm or organization	0.43			
D_ADVOCATE (dummy)	Defendant is represented by an advocate	0.75			
D_FIRM (dummy)	Defendant is a firm or organization	0.32			
VALUE	Value in dispute (EUR)	1865.37	1118	12	40000
CORRESPONDENCE	Party correspondence (pages)	69.33	48	1	414
judge-specific:					
FEMALE (dummy)	Gender of the judge	0.60			
PHD (dummy)	Ph.D. degree of the judge	0.25			
TENURE	Tenure of the judge (years)	11.31	3	0	36
procedural:					
APPEALABLE (dummy)	Value in dispute exceeds 600 EUR	0.69			
ORAL (dummy)	Oral hearings prior to decision	0.79			
H_DAYS	Number of hearing days	1.26	1	0	8
DURATION	Duration of proceedings (months)	5.78	4	0	42

Table 1. Descriptive Statistics of Dataset.

4. Determinants of Settlement Probability

Because our explanatory variable SETTLEMENT is binary, we employ a logit estimation approach to identify the factors that have a systematic impact on in-court settlements. As determinants of settlements, we consider all three groups of variables that were described

in the previous subsection. To control for judge-specific effects, we estimate the model with clustered standard errors (see, e.g., HILBE 2009).[14]

Table 2 reports the regression results. As measured by McFadden's pseudo R-square, the model explains 12 percent of the observed variation in the dependent variable. Based on the set of employed control variables, the model classifies 72 percent of all observations correctly. The results of Hosmer-Lemeshow tests indicate that the model is well fitted.[15] Moreover, an analysis of the bivariate correlations indicates that our estimation does not suffer from multicollinearity problems.[16]

[14] We refrain from using judge-fixed-effects because this would not allow adding other judge-specific variables such as gender or experience to the estimation equation.

[15] We conduct the H-L test with 8, 10 and 12 groups. While the chi²-statistic varies, the p-values always exceed the 20 percent level, thereby rejecting the test's null hypothesis that the model is not well specified. The referring estimation results are shown in table A2 in the Annex.

[16] See Table A3 in the Annex.

Variable	*Coef.*	*z-Value*	*p-Value*		*Marginal Effects*
(intercept)	-1.135	-1.89	0.058	*	
L_TORTS	0.043	0.20	0.840		
L_TENANCY	0.031	0.13	0.898		
L_TRAFFIC	-1.054	-4.01	0.000	***	-0.169
L_OTHER	0.116	0.25	0.805		
P_ADVOCATE	-0.331	-1.29	0.198		
P_FIRM	-0.432	-2.09	0.036	**	-0.081
D_ADVOCATE	0.267	1.29	0.196		
D_FIRM	-0.028	-0.15	0.883		
VALUE	0.000	-0.53	0.597		
CORRESPONDENCE	0.002	0.92	0.357		
FEMALE	-0.005	-0.02	0.988		
PHD	0.759	2.48	0.013	**	0.149
TENURE	0.011	0.68	0.494		
APPEALABLE	0.662	2.73	0.006	***	0.125
ORAL	1.706	2.70	0.007	***	0.269
H_DAYS	-0.898	-2.57	0.010	**	-0.17
DURATION	-0.072	-1.65	0.098	*	-0.014
Regression statistics					
observations			860		
McFadden-R^2			0.12		

Remarks:

We report the results of a logistic regression with standard errors at the judge level. The reference category for the field of law is L_CONTRACT. We report marginal effects at the mean; however, all dummy variables were set to zero. Because the field-of-law dummies are categories of the same underlying variable, we follow BARTUS (2005) in reporting these marginal effects. *Significance levels: '***'<0.01; '**'<0.05; '*'<0.1*

Table 2. Logistic Regression Results for the Determinants of Settlements.

Table 2 also reports the estimated coefficients of the employed control variables (column 2), the z-values (column 3) and the corresponding p-values (column 4). Column 5 shows the marginal effects for those variables, which are found to have a significant effect on settlement probability. Altogether, we find 7 of the employed independent variables to be significantly related to in-court settlements. Interestingly, we find significant

determinants of in-court settlements in all three groups of independent variables—case-specific, judge-related and procedural.

Two variables among the case-specific factors were revealed to have significant effects on the probability of successful settlements. First, we find traffic law cases to be settled significantly less often than cases in the reference category of contract law. Because police reports, witnesses and expert opinions typically provide accurate evidence on traffic accidents, the righteous claimant may have comparatively little incentive to give in to a settlement offer.[17] The marginal effect of 16.9 percentage points is large. Cases from all other categories do not differ significantly from contract law in terms of settlement probability. This might be the result of the fact that these cases are less clear and more difficult to verify than traffic law cases. The second case-related variable that was found to be significant was the dummy variable that indicates whether the plaintiff was a firm or other type of organization. More precisely, we find supporting evidence for the hypothesis that a plaintiff firm is more interested in attaining a court decision once it decides to go to court. Whenever a firm files a case, the probability of a settlement declines by 8.1 percentage points. Firms and large organizations are likely accustomed to lawsuits and may further seek to establish precedents in their favor. Compared with firms, private plaintiffs may be less experienced in lawsuits, and although we control explicitly for the values in dispute, this value might amount to a larger share of wealth whenever individual plaintiffs are concerned. We find no significant effects of advocate representation for either party, and the same holds true for the value in dispute and for party correspondence.

Only one out of the three judge-related variables that were considered was found to have a significant effect on successful settlements. Settlements are more likely whenever the responsible judge holds a Ph.D. Again, the effect is very large: judges with a Ph.D. are more likely to obtain a settlement by 14.9 percentage points. Various factors

[17] Note that German law applies the British rule for litigation costs, determining that the defeated party has to cover the litigation costs of the winning party.

might contribute to explaining this finding. One might argue that holding a Ph.D. is a signal of judicial competence and that one component of this competence is the ability to accurately assess complex legal situations. This competence likely increases the probability of arranging settlements between the involved parties. From the litigants´ point of view, a Ph.D. might add further authority to the judge´s words, increasing the probability that the parties will agree to a settlement proposal. Moreover, judges with a Ph.D. might have developed techniques to manage excessive workloads and might thus regard swift settlements as useful instruments for enhancing their performance records. Tenure is not revealed to have a systematic effect on settlement rates. We also find no significant coefficient for the dummy variable for female judges. That is, in general at least, female judges do not appear to differ from their male counterparts in their ability to arrange in-court settlements. However, we reassess the gender issue in more depth in Section 5 of this paper.

One might expect that procedural rules have major relevance for settlement negotiations because they shape the circumstances under which the negotiations take place. In fact, all of the procedural variables that we included in our estimation approach were found to be significantly related to settlement decisions. First, we found settlements to be much more likely whenever at least one oral proceeding was held. A hearing between the involved parties increases the probability of an in-court settlement by 26.9 percentage points. An oral proceeding allows the opposing litigants to explain their legal claims in person, which is more likely to lead to negotiation. During hearings, the judge can also better utilize his mediation skills than in written correspondence. However, repeated oral proceedings lower the probability of the parties reaching a settlement; settlement probability decreases by 17.0 percentage points for a standard deviation increase in hearing days. This result, however, must be considered with caution. In principle, the finding is highly plausible because settlements are best negotiated on the first day of litigation; with ongoing proceedings, the evidence and the legal situation become clearer, and the party in the better position has little incentive to give in to any compromise. However, we are likely facing an endogeneity problem here because hearing

days can only increase in number when no settlement has been reached.[18] Similar to the results for the number of hearing days, we find a negative and significant effect of the length of the process on settlement probability. Again, this finding is plausible but likely suffers from endogeneity.[19] Finally, appealability is found to have a statistically significant and positive impact on the probability of a settlement. If a court decision is appealable, the probability of settling in advance increases by 12.5 percentage points. Parties appear to be more eager to accept a court ruling when they can expect to end the legal dispute with a definite verdict. A "once and for all" settlement is more tempting if the court ruling´s winning party expects the decision to be appealed by the opposing party. Thus, the conditions that determine appealability are found to be important: more requirements for appeal likely reduce the total number of appellate reviews (thus saving costs[20]) but at the same time decrease the parties´ interest in settlements.

To study the stability of the results, we repeated the estimations using unconditional and conditional judge fixed effects. Although we had to exclude the judge-specific control variables in this case, the results for the remaining independent variables remained qualitatively unchanged.[21] We also estimated a reduced model using only the significant predictors in the regression equation without effect on the qualitative results.

---

[18] As we only have cross-section data, we can hardly solve this endogeneity problem. However, when excluding hearings days from the regression, the qualitative results for the other variables remain stable.

[19] Again, we repeated the estimation excluding the variable measuring the duration of the process. Again, the results for the other variables remained qualitatively unchanged.

[20] The German Civil Process Order allows judges greater discretion in the proceedings (§495a ZPO) and to write shorter verdicts (313a ZPO) for verdicts which cannot be appealed.

[21] The referring estimation results are shown in the Annex, see Table A4.

5. Gender Effects Reconsidered

In the last section, we touched upon the question of whether judges of differing genders also experience differing success in arranging in-court settlements. The previously reported results did not support the hypothesis that male and female judges differ in their general abilities to arrange in-court settlements. However, the chosen estimation approach does not allow for ruling out that judges' gender plays a role in the various subfields of law. A recent article by CROSON and GNEEZY (2009) that reviewed experimental evidence on gender-related behavior concluded that "women´s decisions are more context-specific than men´s" (CROSON and GNEEZY, 2009, p.11). Whenever this holds true, female and male judges might differ systematically in their perceptions and assessments of cases from different subfields of law because the contexts of these cases also differ systematically. For example, tenancy law cases are typically concerned with parties who have medium- or even long-term bilateral contractual relationships, whereas the parties involved in traffic law cases have typically never met before.

To study whether judges' gender plays a role in the subfields of law, we repeat our former empirical analysis but include the interaction effects between gender and the relevant field of law. To avoid an overlap in the analysis (see HILBE 2009, pp. 228), we separately estimate the regression model with the additional interaction term for each case category (see table 3, models I to IV). We follow the traditional approach to interpreting logistic model interactions, and we calculate the coefficients and standard errors of the interaction effect.[22] The estimation results are reported in Table 3.

---

[22] See, among others, HOSMER, LEMESHOW and STURDIVANT (2013) or HILBE (2009). We calculate the interaction $x_1 * x_2$ with the interaction term x_3 and respective coefficients $\beta_1, \beta_2, \beta_3$ as follows:

$\beta_{x*x}(x_2) = \beta_1 + \beta_3 * x_2$, $se(x_2) = \sqrt{VAR(\beta_1) + (x_2)^2 * VAR(\beta_3) + 2 * x_2 * COV(\beta_1, \beta_3)}$, z-value $= \frac{\beta_{x*x}}{se}$.

	(I)			(II)			(III)			(IV)		
Variable	***Coef.***	***z-Value***		***Coef.***	***z-Value***		***Coef.***	***z-Value***		***Coef.***	***z-Value***	
(intercept)	-1.181	-1.94	*	-0.754	-1.32		-1.145	-1.88	*	-1.146	-1.95	*
main effects:												
L_TORTS	0.772	2.66	***	0.059	0.30		0.042	0.20		0.056	0.26	
L_TENANCY	0.030	0.13		-0.873	-4.02	***	0.030	0.13		0.036	0.15	
L_TRAFFIC	-1.070	-4.01	***	-1.038	-3.89	***	-0.911	-2.27	**	-1.050	-4.02	***
L_OTHER	0.125	0.26		0.062	0.13		0.117	0.25		0.612	2.23	**
P_ADVOCATE	-0.355	-1.39		-0.518	-2.23	**	-0.335	-1.31		-0.355	-1.33	
P_FIRM	-0.434	-2.06	**	-0.422	-2.28	**	-0.431	-2.08	**	-0.429	-2.12	**
D_ADVOCATE	0.270	1.29		0.243	1.09		0.265	1.29		0.246	1.12	
D_FIRM	-0.011	-0.06		-0.046	-0.24		-0.032	-0.17		-0.017	-0.09	
VALUE	0.000	-0.54		0.000	-0.44		0.000	-0.53		0.000	-0.52	
CORRESPONDENCE	0.002	0.90		0.002	0.96		0.002	0.91		0.002	0.97	
FEMALE	0.046	0.15		-0.355	-1.17		0.023	0.07		0.069	0.23	
PHD	0.792	2.59	***	0.759	2.48	**	0.756	2.48	**	0.739	2.43	**
TENURE	0.011	0.73		0.009	0.60		0.011	0.68		0.011	0.70	
APPEALABILITY	0.690	2.88	***	0.682	2.74	***	0.663	2.75	***	0.692	2.80	***
ORAL	1.687	2.66	***	1.753	2.74	***	1.709	2.71	***	1.683	2.63	***
DURATION	-0.070	-1.63		-0.072	-1.70	*	-0.071	-1.65	*	-0.072	-1.67	*
H_DAYS	-0.889	-2.56	***	-0.932	-2.68	***	-0.899	-2.57	***	-0.907	-2.61	***
interaction terms:												
F_TORTS	-1.256	-3.12	***									
F_TENANCY				1.464	6.25	***						
F_TRAFFIC							-0.244	-0.47				
F_OTHER										-0.977	-1.18	
interaction effect:	-1.210	-2.61	***	1.109	2.72	***	-0.211	-0.36		-0.908	-1.02	
Regression statistics												
observations	860			860			860			860		
McFadden-R^2	0.12			0.13			0.12			0.12		

Remarks:

We report the results of a logistic regression with standard errors at the judge level. The reference category for the field of law is L_CONTRACT. *Significance levels: '***'<0.01; '**'<0.05; '*'<0.1*

Table 3. Subset Analysis and Interaction Effects for Gender.

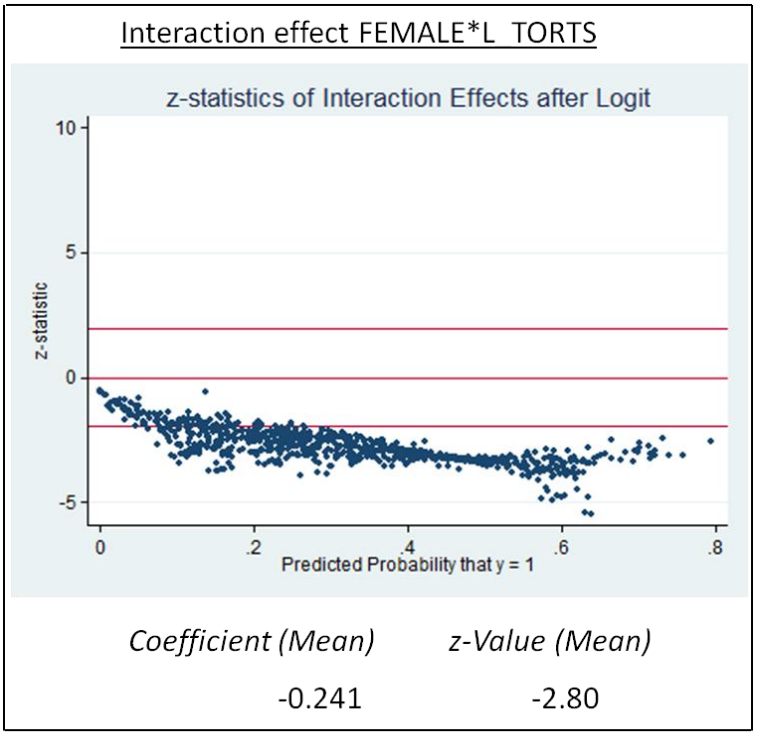
Interestingly, we in fact find supporting evidence for the hypothesis that judges of different genders exhibit different abilities to arrange settlements in two subfields of law. First, we find that female judges exhibit a lower probability of arranging in-court settlements in tort law. Second, we find the opposite effect in the field of tenancy law;

that is, female judges more often arrange settlements between the parties in tenancy law cases. Both effects are found to be highly significant.[23] The latter effect is particularly strong, and its inclusion provides a substantial contribution to the fit of the regression model.[24] In addition to the interaction term, the coefficients for the related main effects for L_TORTS and L_TENANCY also become significant in the respective models. For traffic accidents and other case categories, we find no statistically significant interaction with the judge´s gender.

AI and NORTON (2003) provide an alternative way of analyzing logistic model interactions by basing their calculations on the estimated cross-derivative of the terms and including all other predictors that contribute to the overall explanation of the response. The advantage of this approach is that the determined interaction effect is conditional on the independent variables and thus allows for a more detailed interpretation. To verify the robustness of our findings, we follow this approach and calculate the respective interaction effects as proposed in AI, NORTON and WANG (2004); the results are shown in Figure 1.

[23] We report calculated coefficients, standard errors and z-values for all levels in the Annex, table A6. The deviation statistics and an analysis of the Akaike Information Criterion (see Annex, table A5) indicate that particularly the interaction FEMALE*L_TENANCY substantially explains variation in the data.

[24] The AIC for the model with this interaction effect yields a value of 978.7 instead of 993.8 for the main effects model. The Hosmer-Lemeshow test (10 groups) yields $X^2 = 9.6$ with $p = 0.29$. Furthermore, the control variable P_ADVOCATE becomes significant, plausibly indicating that advocates of the plaintiff party are less interested in a settlement.



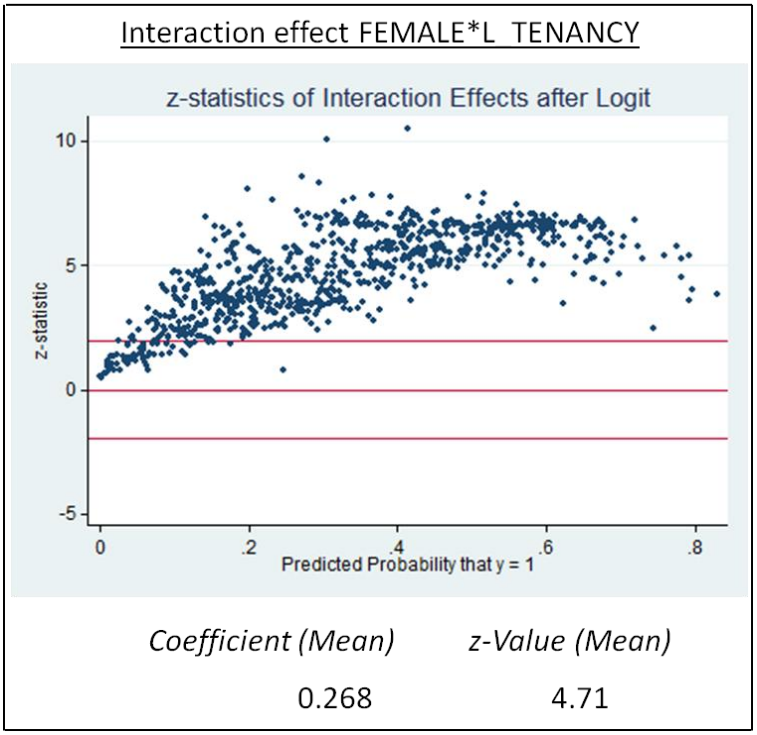


Fig. 1. Z-Statistic and 95 Percent Confidence Level for Interaction Effects as a Function of the Predicted Probability of Settlements.[25]

[25] The interaction effects were calculated in Stata 13.1, using the 'inteff'-command (st0063_1). The figures for the other two categories are displayed in the Annex, Figure A7.

The results are found to be consistent with our previous findings. Both interaction effects have the same sign as before and are, on average, highly significant. In addition, Figure 1 displays the z-statistic for each observation, depending on the estimated probability of settlement. Compared with the reference category of contract law, we find that the interaction effect between judge´s gender and tort law is negative but insignificant for most cases with a very low probability of settlement. However, with increasing estimated probability of settlement, the interaction effect becomes more often significant; for estimated probabilities larger than 20 percent, nearly all observations are significantly lower than zero. We find a similar result for the interaction between judge´s gender and tenancy law. The effect is found to be positive but insignificant for low probabilities of settlement, but the significance increases once a settlement becomes more probable. For settlement probabilities larger than 20 percent, again, nearly all observations deliver significantly positive effects. The displayed patterns indicate that the judge´s gender does not matter whenever the party positions are so entrenched that any attempt at compromise is hopeless. As soon as there is any chance that settlements can be arranged, gender issues come to play a role in successfully reaching a settlement (at least with regard to tort and tenancy law). Interestingly, we again do not find systematic effects for the other law categories. In light of the earlier discussed fact that traffic law settlements are comparatively rare because the litigants show strong interest in court rulings, this is not particularly surprising. Whenever settlement rates in a subfield of law are generally low, there is little room for the involved judges to mediate.

Although we cannot formally test why female judges are more effective in arranging settlements in tenancy law but the opposite holds true in tort law, we nevertheless might speculate somewhat about possible reasons for these findings. One possible explanation is that tenancy cases typically originate from frictions in the long-term relationship between the litigants (and often, continuing of this relationship is at least essential for one party), whereas the relationships in tort law cases are typically somewhat coincidental. Female arbitrators might be more able to moderate and also more empathetic regarding existing malfunctioning relationships than their male counterparts,

but they might lack these skills in the direct and volatile confrontations of tort law cases. A different (and perhaps somewhat more provocative) explanation might be that female judges are more sensitive to the outcomes of lawsuits: failing to settle a tenancy case may often result in a delicate situation for the tenant as the inferior contract party, for example, in the case of a forced eviction. Settling a tort law case, however, might be perceived by a female judge as unfair to the victim or insufficient for restoring public order. Thus, a female judge may subconsciously prefer to express her beliefs in a court ruling and thereby suppress her commitment to settling.

6. Summary and Conclusions

As we argued in the introduction of this paper, governments around the globe are interested in high settlement rates in civil law litigation. To achieve these high settlement rates, governments need to know which factors have a significant impact on settlement probability. Knowledge of these factors is a prerequisite for the adequate and efficient design of legal institutions and procedures. This paper aims at increasing our knowledge regarding the determinants of settlement probability. Based on a dataset from a German trial court, we study which case-specific, judge-related and procedural factors have a significant impact on in-court settlement probability.

We find that two case-specific factors have a significant impact on settlement probability: the relevant field of law and the legal personality of the plaintiff. Traffic law cases tend to be settled with lower probability than the reference category of contract law, and the same holds true for cases in which the plaintiff is an enterprise. However, case-specific factors can in general hardly be influenced by legislators.

Because procedural rules are defined or at least influenced by legislators, they are generally better suited as policy instruments aimed at achieving high settlement rates. Our empirical study identifies a number of procedural factors that have a systematic influence on settlement probability. First, we find significantly higher settlement rates in cases with

at least one oral hearing. One might therefore conclude that legislators should strive for a primacy of oral proceedings when they are interested in high settlement rates. Second, we find that the number of hearing days has a negative impact on settlement probability. Although, as we explained earlier, this finding must be interpreted cautiously, it tends to justify the procedural rules that penalize parties who refuse settlement offers that are better than the final court rulings. Such procedural rules are applied in, e.g., Australia and in the United Kingdom. Third, we find that the rules for appealability have a significant impact on settlement probability; that is, cases that can be appealed exhibit significantly higher settlement probability. Clearly, legislators face a trade-off here. When the legal preconditions for a case to be appealable increase, the higher courts´ workloads decrease. However, this comes at the price of lower settlement rates in the courts of first instance.

We also find empirical evidence in favor of the hypothesis that judges differ in their abilities to arrange in-court settlements between the involved parties. Interestingly, judges with a Ph.D. successfully arrange settlements with a significantly higher probability. Although we did discuss different arguments behind this finding, it appears that employing a judge with a Ph.D. contributes to increasing the settlement rate. We also find gender differences in arranging in-court settlements. Although there is little empirical evidence in favor of the hypothesis that male and female judges in general differ in their abilities to reach in-court settlements, we identified gender-related differences in two subfields of law. Whereas male judges are more successful in arranging settlements in tort law, the opposite holds true in tenancy cases; as a consequence, it might prove to be useful to allocate male judges primarily to tort law cases and female judges to tenancy cases.

Although our empirical study has some highly interesting policy implications, we tend to be cautious in generalizing our results. This approach especially holds true with respect to the judge-related factors because the number of different judges in our sample was not particularly large. However, our study provides a number of policy-relevant findings that might prove to be highly useful if they are further substantiated in future empirical studies with comparable designs.

References

[1] Ai, Chunrong, and Edward Norton. 2003. Interaction Terms in Logit and Probit Models. *Economics Letters* 80: 123-129.

[2] Ai, Chunrong, Edward Norton, and Hua Wang. 2004. Computing Interaction Effects and Standard Errors in Logit and Probit Models. *Stata Journal* 4: 154-167-

[3] Bartus, Tamas. 2005. Estimation of Marginal Effects Using Margeff. *The Stata Journal* 5: 309-329.

[4] Bebchuck, Lucian. 1984. Litigation and Settlement under imperfect Information. *RAND Journal of Economics 15*: 404-415.

[5] Benharda, Imen, Jeanne Brett, and Alain Lempereur. 2013. Gender and Role in Conflict Mangagement: Female and Male Managers as Third Parties. *Negotiation and Conflict Management Research* 6: 79-93.

[6] Bowles, Hannah, Linda Babcock, and Lei Lai. 2007. Social incentives for gender differences in the propensity to initiate negotiations: Sometimes it does hurt do ask. *Organizational Behavior and Human Decision Processes* 103: 84-103.

[7] Boyd, Christina, and David Hoffman. 2012. Litigating towards Settlement. *Journal of Law, Economics and Organization* 29: 898-929.

[8] Che, Yeon-Koo, and Kathryn Spier. 2008. Exploiting Plaintiffs through Settlement: Divide and Conquer. *Journal of Institutional and Theoretical Economics* 164: 4-23.

[9] Chen, Kong-Pi, and Jue-Shyan Wang. 2006. Fee-Shifting Rules in Litigation with Contingency Fees. *Journal of Law, Economics, and Organization* 23: 519-546.

[10] Chopard, Bertrand, Thomas Cortade, and Eric Langlais. 2010. Trial and Settlement Negotiations between asymmetrically skilled parties. *International Review of Law and Economics* 30: 18-27.

[11] Christmann, Robin. 2013. Tipping the Scales – Conciliation, Appeal and the Relevance of Judicial Ambition. Working Paper. Helmut-Schmidt-University (UniBw), Hamburg.

[12] Cobbmediation. 2008. Correlation of Mediator Gender to Settlement Rate. http://cobbmediation.wordpress.com/2008/11/11/correlation-of-mediator-gender-to-settlement-rate/ (last updated: November 11, 2008)

[13] Cooter, Robert, Stephen Marks, and Robert Mnookin. 1982. Bargaining in the Shadow of the Law: A Testable Model of Strategic Behavior. *Journal of Legal Studies*11: 225-251.

[14] Cooter, Robert, and Daniel Rubinfeld. 1994. An Economic Model of Legal Discovery. *Journal of Legal Studies* 23: 435-463.

[15] Croson, Rachel, and Uri Gneezy. 2009. Gender Differences in Preferences. *Journal of Economic Literature* 47: 1-27.

[16] Daughety, Andrew, and Jennifer Reinganum. 2014. Settlement and Trial: Selected Analyses of the Bargaining Enviroment. Working Paper. Vanderbilt University Department of Economics, Nashville.

[17] Eisenberg, Theodore. 1990. Testing the Selection Effect: A new Theoretical Framework with Empirical Tests. *Journal of Legal Studies* 19: 337-358.

[18] Eisenberg, Theodore, and Charlotte Lanvers. 2009. What is the Settlement Rate and Why Should We Care? *Journal of Empirical Legal Studies* 6: 111-146.

[19] Farmer, Amy, and Paul Pecorino. 2005. Civil Litigation with mandatory discovery and voluntary transmission of private information. *Journal of Legal Studies* 34: 137-159.

[20] Farmer, Amy, and Paul Pecorino. 2014. Litigation with Default Judgments. *Revue of Law and Economics* 10: 117-136.

[21] Gould, John. 1973. The Economics of Legal Conflict. *Journal of Legal Studies* 2: 279-300.

[22] Gross, Samuel, and Kent Syverud. 1991. Getting to No: A Study of Settlement Negotiations and the Selection of Cases for Trial. *Michigan Law Review* 90: 319-393.

[23] Hilbe, Joseph. 2009. *Logistic Regression Models*. Boca Raton: CRC Press.

[24] Hosmer, David, Stanley Lemeshow, and Rodney Sturdivant. 2013. *Applied Logistic Regression*. Hoboken, NJ: John Wiley & Sons.

[25] Hughes, James, and Edward Snyder. 1995. Litigation and Settlement under the English and American Rules: Theory and Evidence. *Journal of Law and Economics* 38: 225-250.

[26] Jeitschko, Thomas, and Byung-Cheol Kim. 2012. Signaling, Learning, and Screening Prior to Trial: Informational Implications of Preliminary Injunctions. *Journal of Law, Economics and Organization* 29: 1085-1113.

[27] Kessler, Daniel, Thomas Meites, and Geoffrey Miller. 1996. Explaining Deviations from the Fifty-Percent Rule: A Multimodal Approach to the Selection of Cases for Litigation. *Journal of Legal Studies* 25: 233-260.

[28] Kockesen, Levent, and Murat Usman. 2012. Litigation and Settlement und Judicial Agency. *International Review of Law and Economics* 32: 300-308.

[29] Korobkin, Russel, and Joseph Doherty. 2009. Who wins in Settlement Negotiations? *American Law and Economics Review* 11: 162-208.

[30] Kray, Laura, and Leigh Thompson. 2004. Gender Stereotypes and Negotiation Performance: An Examination of Theory and Research. *Research in Organizational Behavior* 26: 103-182

[31] Kulik, Carol, Elissa Perry, and Molly Pepper. 2003. Here Comes the Judge: The Influence of Judge Personal Characteristics on Federal Sexual Harassment Case Outcomes. *Law and Human Behavior* 27: 69-86.

[32] Landes, William. 1971. An Economic Analysis of the Courts. *Journal of Law and Economics* 14: 61-107.

[33] Ledermann, Leandra. 1999. Which Cases Go to Trial?: An Empirical Study of Predictors of Failure to Settle. *Case Western Reserve Law Review* 49: 315-358.

[34] Maxwell, David. 1992. Gender Differences in Mediation Style and Their Impact on Mediator Effectiveness. *Mediation Quarterly* 9: 353-364.

[35] Mnookin, Robert, and Robert Wilson. 1998. A Model of Efficient Discovery. *Games and Economic Behavior* 25: 219-250

[36] Peresie, Jennifer. 2005. Female Judges Matter: Gender and Collegial Decision-making in the Federal Appellate Courts. *Yale Law Journal* 114: 1759-1790

[37] Pradel, Dina, Hannah Bowles, and Kathleen Mcginn. 2006. When does Gender Matter in Negotiations?. *Contract Management*, May 2006.

[38] Priest, George, and Benjamin Klein. 1984. The Selection of Disputes for Litigation. *Journal of Legal Studies* 13: 1-55.

[39] Priest, George. 1985. Reexamining the Selection Hypothesis: Learning from Wittman´s Mistakes. *Journal of Legal Studies* 14: 215-243.

[40] Posner, Richard. 1973. An Economic Approach to Legal Procedure and Judicial Administration. *Journal of Legal Studies* 2: 399-458.

[41] Reinganum, Jennifer, and Louis Wilde. 1986. Settlement, Litigation, and the Allocation of Litigation Costs. *RAND Journal of Economics* 17: 557-566.

[42] Resnik, Judith. 2002. Mediating Preferences: Litigant Preferences for Process and Judicial Preferences for Settlement. *Journal of Dispute Resolution* 2002: 1-16.

[43] Shavell, Steven. 1982. The Social Versus the Private Incentive to Bring Suit in a Costly Legal System. *Journal of Legal Studies* 11: 333-339.

[44] Shavell, Steven. 1995. Alternative Dispute Resolution: An Economic Analysis. *Journal of Legal Studies* 24: 1-28.

[45] Sobel, Joel. 1989. An Analysis of Discovery Rules. *Law and Contemporary Problems* 52: 133-159.

[46] Waldfogel, Joel. 1995. The Selection Hypothesis and the Relationship between Trial and Plaintiff Victory. *Journal of Political Economy* 103: 229-260.

[47] Wittman, Donald. 1985. Is the Selection of Cases for Trial Biased? *Journal of Legal Studies* 14: 185-214.

Annex

Category	Cases	Settlements	Settlement Rate
All	860	279	32.4
Contract	439	141	32.1
Torts	38	13	34.2
Tenancy	208	78	37.5
Traffic	123	24	19.5
Other	52	23	44.2
Torts (incl. Traffic)	161	37	23.0
Contract (incl. Tenancy)	647	219	33.8

Table A1. Settlement Rates in Sample.

Hosmer-Lemeshow Test for 10 Groups						
Group	**Prob**	**Obs_1**	**Exp_1**	**Obs_0**	**Exp_0**	**Total**
1	0.1046	9	5.2	77	80.8	86
2	0.1556	11	11.3	75	74.7	86
3	0.2065	14	15.5	72	70.5	86
4	0.2559	20	20	66	66	86
5	0.3129	21	24.2	65	61.8	86
6	0.3761	28	29.7	58	56.3	86
7	0.4291	33	34.7	53	51.3	86
8	0.4895	34	39.6	52	46.4	86
9	0.5708	47	45.4	39	40.6	86
10	0.7837	62	53.4	24	32.6	86
statistics:	*observations*		860			
	Hosmer-Lemeshow chi^2		9.4			
	p-value		0.31			

Hosmer-Lemeshow Test Results for Other Group Sizes			
size	6	8	12
H-L chi²	5.05	5.5	13.39
p-value	0.28	0.48	0.2

Table A2. *Hosmer-Lemeshow Goodness of Fit Test for the Logistic Model.*

	PHD	P_FIRM	L_TRAFFIC	APPEALABILITY	DURATION	H_DAYS	ORAL
PHD	1.00						
P_FIRM	0.07	1.00					
L_TRAFFIC	-0.04	-0.28	1.00				
APPEALABILITY	-0.06	-0.10	0.13	1.00			
DURATION	-0.03	-0.07	0.09	0.31	1.00		
H_DAYS	0.06	-0.17	0.11	0.40	0.47	1.00	
ORAL	-0.06	-0.22	0.13	0.55	0.29	0.59	1.00

Table A3. Correlation Matrix of the Significant Variables.

SETTLEMENT	A4.1			A4.2			A4.3			A4.4			A4.5			A4.6		
Applied Method	Clustered Standard Errors (Judge)						Unconditional FE						Conditional FE					
Variable	***Coef.***	***z-Value***		***Coef.***	***z-Value***		***Coef.***	***z-Value***		***Coef.***	***z-Value***		***Coef.***	***z-Value***		***Coef.***	***z-Value***	
(intercept)	-1.135	-1.89	*	-1.182	-3.66	***	-2.025	-4.28	***	-2.126	-6.14	***						
L_TORTS	0.043	0.20					0.192	0.47					0.190	0.47				
L_TENANCY	0.031	0.13					0.089	0.39					0.089	0.39				
L_TRAFFIC	-1.054	-4.01	***	-1.018	-3.89	***	-1.087	-3.54	***	-1.126	-4.13	***	-1.064	-3.50	***	-1.103	-4.09	***
L_OTHER	0.116	0.25					0.220	0.63					0.215	0.62				
P_ADVOCATE	-0.331	-1.29					-0.267	-0.84					-0.261	-0.83				
P_FIRM	-0.432	-2.09	**	-0.378	-1.91	*	-0.438	-2.25	**	-0.417	-2.39	**	-0.430	-2.23	**	-0.409	-2.36	**
D_ADVOCATE	0.267	1.29					0.271	1.22					0.264	1.20				
D_FIRM	-0.028	-0.15					-0.029	-0.13					-0.029	-0.14				
VALUE	0.000	-0.53					0.000	-0.58					0.000	-0.58				
CORRESPONDENCE	0.002	0.92					0.002	1.11					0.002	1.09				
FEMALE	-0.005	-0.02					fix						fix					
PHD	0.759	2.48	**	0.680	2.72	***	fix						fix					
TENURE	0.011	0.68					0.154	0.73					0.151	0.73				
APPEALABILITY	0.662	2.73	***	0.653	2.57	***	0.905	3.82	***	0.922	4.22	***	0.890	3.79	***	0.906	4.19	***
ORAL	1.706	2.70	***	1.779	2.87	***	2.009	5.98	***	2.095	6.38	***	1.970	5.94	***	2.053	6.34	***
DURATION	-0.072	-1.65	*	-0.058	-1.70	*	-0.119	-3.23	***	-0.089	-3.27	***	-0.117	-3.22	***	-0.088	-3.26	***
H_DAYS	-0.898	-2.57	***	-0.886	-2.66	***	-1.176	-6.78	***	-1.167	-6.87	***	-1.155	-6.75	***	-1.145	-6.83	***
Clusters	YES			YES			NO			NO			NO			NO		
Fixed-Effects	NO			NO			YES			YES			YES			YES		
Regression statistics																		
observations	860			860			857			857			857			857		
McFadden-R^2	0.12			0.11			0.17			0.17			0.15			0.14		
AIC	993.842			981.760			958.371			945.852			867.072			854.420		

Remarks:

*significance levels: '***'<0.01; '**'<0.05; '*'<0.1*

Table A4. Robustness Checks.

Model	*Deviance Statistic* Deviance	Difference	*Information Criteria Test* AIC	Difference
constant	1083.867		1085.867	
main effects:				
L_TRAFFIC	1072.049	11.818	1076.049	9.818
APPEALABILITY	1060.413	11.636	1066.413	9.636
ORAL	1054.389	6.024	1062.389	4.024
H_DAYS	991.790	62.599	1001.79	60.599
PHD	978.285	13.505	990.286	11.504
P_FIRM	972.258	6.027	986.258	4.028
DURATION	965.760	6.498	981.76	4.498
P_ADVOCATE	964.682	1.078	982.682	-0.922
D_ADVOCATE	962.406	2.276	982.406	0.276
CORRESPONDENCE	961.006	1.4	983.006	-0.6
TENURE	958.706	2.3	982.706	0.3
VALUE	958.010	0.696	984.01	-1.304
L_OTHER	957.899	0.111	985.899	-1.889
L_TORTS	957.891	0.008	987.891	-1.992
D_FIRM	957.863	0.028	989.863	-1.972
L_TENANCY	957.842	0.021	991.842	-1.979
FEMALE	957.842	0	993.842	-2
+ 1 interaction term:				
F_TORTS	955.135	2.707	991.135	2.707
F_TENANCY	942.683	15.159	978.683	15.159
F_TRAFFIC	957.610	0.232	993.61	0.232
F_OTHER	955.408	2.434	991.408	2.434

Remark (I): this statistic is calculated by adding one variable after the other to the constant model, in the order by significance levels
Remark (II): the results for the interaction effects are reported by adding only one ie-term to the full main effects model

Table A5. Deviance Statistics and Information Criteria Tests.

Interaction FEMALE*L_TORTS			
level	*coefficient*	*se*	*z-value*
L_TORTS = 0	0.046	0.311	0.15
L_TORTS = 1	-1.210 ***	0.464	-2.61

Interaction FEMALE*L_TENANCY			
level	*coefficient*	*se*	*z-value*
L_TENANCY = 0	-0.355	0.302	-1.18
L_TENANCY = 1	1.109 ***	0.408	2.72

Interaction FEMALE*L_TRAFFIC			
level	*coefficient*	*se*	*z-value*
L_TRAFFIC = 0	0.023	0.310	0.07
L_TRAFFIC = 1	-0.211	0.583	-0.36

Interaction FEMALE*L_OTHER			
level	*coefficient*	*se*	*z-value*
L_OTHER = 0	0.069	0.304	0.23
L_OTHER = 1	-0.908	0.889	-1.02

*Significance levels: '***'<0.01; '**'<0.05; '*'<0.1*

Table A6. Calculated Interaction Effects.

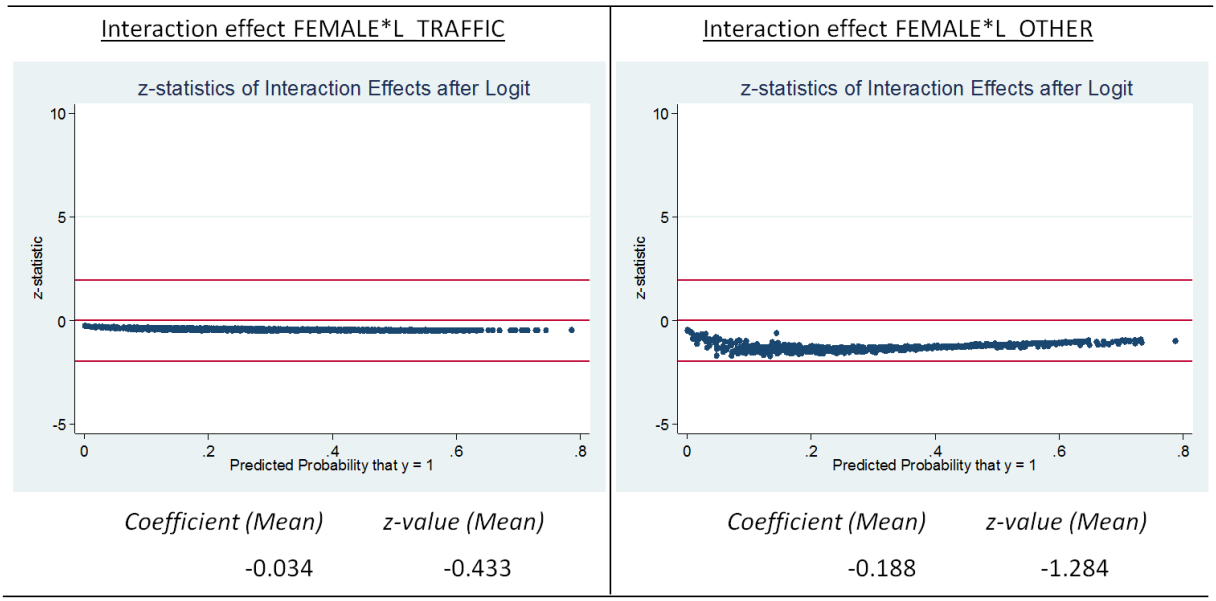


Fig. A7. Z-Statistics and 95 Percent Confidence Levels for Interaction Effects as a Function of the Predicted Probability for Settlements (Additional Results).

2014

154 Berlemann, Michael; Christmann, Robin: Determinants of In-Court Settlements. Empirical Evidence from a German Trial Court, December 2014

153 Bennöhr, Lars; Oestmann, Marco: Determinants of house price dynamics. What can we learn from search engine data?, October 2014

152 Dewenter, Ralf; Giessing, Leonie: The Effects of Elite Sports on Later Job Success, October 2014

151 Dewenter, Ralf; Rösch, Jürgen; Terschüren, Anna: Abgrenzung zweiseitiger Märkte am Beispiel von Internetsuchmaschinen, October 2014

150 Berlemann, Michael; Jahn, Vera: Governance, firm size and innovative capacity: regional empirical evidence for Germany, August 2014

149 Dewenter, Ralf; Rösch, Jurgen: Net neutrality and the incentives (not) to exclude competitors, July 2014

148 Kundt, Thorben: Applying "Benford's" law to the Crosswise Model: Findings from an online survey on tax evasion, July 2014

147 Beckmann, Klaus; Reimer, Lennart: Dynamiken in asymmetrischen Konflikten: eine Simulationsstudie, July 2014

146 Herzer, Dierk: Unions and income inequality: a heterogeneous panel cointegration and causality analysis, July 2014

145 Beckmann, Klaus; Franz, Nele; Schneider, Andrea: Intensive Labour Supply: a Menu Choice Revealed Preference Approach for German Females and Males, June 2014

144 Beckmann, Klaus; Franz, Nele; Schneider, Andrea: On optimal tax differences between heterogenous groups, May 2014

143 Berlemann, Michael; Enkelmann, Sören: Institutions, experiences and inflation aversion, May 2014

142 Beckmann, Klaus; Gattke, Susan: Tax evasion and cognitive dissonance, April 2014

141 Herzer, Dierk; Nunnenkamp, Peter: Income inequality and health – evidence from developed and developing countries, April 2014

140 Dewenter, Ralf; Heimeshoff, Ulrich: Do Expert Reviews Really Drive Demand? Evidence from a German Car Magazine, March 2014

139 Dewenter, Ralf; Heimeshoff, Ulrich: Media Bias and Advertising: Evidence from a German Car Magazine, March 2014

138 Beckmann, Klaus; Reimer, Lennart: Dynamics of military conflict from an economics perspective, February 2014

2013

137 Christmann, Robin: Tipping the Scales - Conciliation, Appeal and the Relevance of Judicial Ambition, December 2013

136 Hessler, Markus; Loebert, Ina: Zu Risiken und Nebenwirkungen des Erneuerbare-Energien-Gesetzes, June 2013

135 Wesselhöft, Jan-Erik: The Effect of Public Capital on Aggregate Output- Empirical Evidence for 22 OECD Countries -, June 2013

134 Emrich, Eike; Pierdzioch, Christian; Rullang, Christian: Zwischen Ermessensfreiheit und diskretionären Spielräumen: Die Finanzierung des bundesdeutschen Spitzensports – eine Wiederholungsstudie, April 2013

133 Christmann, Robin: Vertragliche Anreize und die Fehlbarkeit des Richters – Der ungewisse Gang vor Gericht und sein Einfluss auf eine Verhaltenssteuerung im BGB-Vertragsrecht, March 2013.

132 Gerrits, Carsten: Internetnutzer und Korruptionswahrnehmung - Eine ökonometrische Untersuchung, February 2013

131 Freese, Julia: The regional pattern of the U.S. house price bubble - An application of SPC to city level data, January 2013