COURTS*

SIMEON DJANKOV
RAFAEL LA PORTA
FLORENCIO LOPEZ-DE-SILANES
ANDREI SHLEIFER

In cooperation with Lex Mundi member law firms in 109 countries, we measure and describe the exact procedures used by litigants and courts to evict a tenant for nonpayment of rent and to collect a bounced check. We use these data to construct an index of procedural formalism of dispute resolution for each country. We find that such formalism is systematically greater in civil than in common law countries, and is associated with higher expected duration of judicial proceedings, less consistency, less honesty, less fairness in judicial decisions, and more corruption. These results suggest that legal transplantation may have led to an inefficiently high level of procedural formalism, particularly in developing countries.

I. INTRODUCTION

A fundamental proposition in economics holds that the security of property and the enforcement of contracts are essential for investment, trade, and ultimately economic growth to come about [Montesquieu 1748; Smith 1776]. Many institutions serve to secure property and enforce contracts. Some of them are entirely private, such as reputations and informal discussions among neighbors, and do not rely on the government [Macaulay 1963; Galanter 1981; Ellickson 1991]. Other institutions securing property and enforcing contracts, such as regulators and courts, are governmental. Regulatory agencies restrict private conduct that

might adversely influence others, and courts resolve property and contractual disputes.

Economic theory does not tell us which of these mechanisms of securing property and enforcing contracts is the best, and in reality they are all far from perfect. Private security and enforcement, while working well in some environments, often degenerate into violence. Indeed, Smith [1776] saw "a tolerable administration of justice" as one of the few proper functions of government, enabling an ordinary citizen to seek justice against richer and more powerful offenders who control private enforcement.[1] Public regulation, likewise, while sometimes effective,[2] is often corrupted and "captured" by the very violators, such as monopolists and pollutants, it needs to restrain [Stigler 1971]. Economists have been generally most optimistic about courts as the institution securing property and enforcing contracts [Coase 1960], and with few exceptions (e.g., Johnson, McMillan, and Woodruff [2002], and Bianco, Japelli, and Pagano [2001]) have devoted little attention to analyzing their limitations. From the point of view of evaluating alternative institutional arrangements, however, it is crucial to understand the factors that make courts function more or less effectively.

In this paper we present an empirical study of the effectiveness of courts as mechanisms of resolving simple disputes in 109 countries. We examine how a plaintiff can use an official court to evict a nonpaying tenant and to collect a bounced check. We find that even these simple disputes are resolved extremely slowly by courts in most countries, taking an average of over 200 days. We also find huge variation among countries in the speed and quality of courts.

We try to explain this variation from the perspective of three broad theories. The "development" theory holds that courts, like many other institutions, work better in countries that have richer and more educated populations [Demsetz 1967; North 1981]. According to this theory, there are fixed costs of setting up institutions, which only become socially worth paying once the demand for them—largely driven by the level of economic develop-

---

1. Likewise, commentators on transition from socialism see the reform of the public legal system as an antidote to the violence associated with private enforcement (e.g., Hay and Shleifer [1998] and Hay, Shleifer, and Vishny 1996]).
2. Glaeser, Johnson, and Shleifer [2001] and Glaeser and Shleifer [2001, 2003] describe some circumstances in which regulation is an efficient strategy for securing property rights.

ment— becomes high enough. A poor society may rely on informal dispute resolution; a richer one relies on more complex contracts and needs courts to resolve disputes. Similarly, a better educated population both raises the efficiency of courts (if human capital is an input) and the demand for them.

The "incentive" theory holds that the efficiency of courts is shaped by the incentives of the participants in dispute resolution, including the judges, the lawyers, and the litigants [Messick 1999; Buscaglia and Dakolias 1999]. According to this theory, courts work poorly when the participants have weak or wrong incentives: judges do not care about delays; lawyers are paid to prolong proceedings; defendants seek to avoid judgment. The implication is that factors such as mandatory deadlines for judges, contingency fees for attorneys, and "loser pays" rules improve court performance.

The third theory—which is more novel and central to this paper—is that performance of courts is determined by how the law regulates their operation, what we call procedural formalism or formalism for short. The main contribution of this paper is to explain theoretically and to measure empirically the determinants of procedural formalism, as well as to assess its consequences for the quality of dispute resolution in courts.

In a theoretical model of an ideal court, a dispute between two neighbors can be resolved by a third on fairness grounds, with little knowledge or use of law, no lawyers, no written submissions, no procedural constraints on how evidence, witnesses, and arguments are presented, and no appeal [Shapiro 1981]. Yet in reality, all legal systems heavily regulate dispute resolution: they rely on lawyers and professional judges, regiment the steps that the disputants must follow, regulate the collection and presentation of the evidence, insist on legal justification of claims and judges' decisions, give predominance to written submissions, and so on. We examine the reasons for procedural formalism as well as its consequences for the performance of courts.

To this end, in cooperation with Lex Mundi, the largest international association of law firms, we describe the exact procedures used to resolve two specific disputes in 109 countries. These are the eviction of a residential tenant for nonpayment of rent and the collection of a check returned for nonpayment. We describe the cases to a law firm in each country in great detail, and ask for a complete write-up of the legal procedures necessary to dispute these cases in court and the exact articles of the law

governing these procedures. We use the responses to construct measures of formalism, defined as the extent to which regulation causes dispute resolution to deviate from the neighbor model.

Research in comparative law and legal history suggests that formalism varies systematically among legal origins [Berman 1983; Merryman 1985; Damaska 1986; Schlesinger et al. 1988]. In particular, civil law countries generally regulate dispute resolution, including the conduct of the adjudicators, more heavily than do common law countries. Our data provide a striking empirical confirmation of this proposition. Legal origins alone explain around 40 percent of the variation in our measures of formalism among 109 countries. We also find that adjudication is more formalized in the less developed than in the rich countries.

We next turn to the three hypotheses on the determinants of judicial quality. From the participating law firms, we obtain estimates of the expected duration of our two disputes in calendar days, from the original filing of a complaint to the ultimate enforcement of judgment. In addition, we use assessments of judicial quality from other data sources, covering such areas as enforceability of contracts, access to justice, and corruption, as well as data from the World Business Environment Survey of small firms on the fairness, consistency, honesty, and other aspects of the legal system. We also collect data on per capita income and educational level in each country, as well as several measures of incentives facing judges, attorneys, and litigants.

We find that ceteris paribus higher procedural formalism is a strong predictor of longer duration of dispute resolution. Higher formalism also predicts lower enforceability of contracts, higher corruption, as well as lower honesty, consistency, and fairness of the system. These results hold both in ordinary least squares regressions, and in instrumental variable estimates where legal origin is used as an instrument for formalism. The results hold for both eviction and check collection. In our data there is no evidence that formalism secures justice.

We also find some evidence consistent with the development hypothesis, namely that countries with richer populations have higher quality courts. On the other hand, we find almost no evidence that the incentives of the participants in the legal system influence its quality.

Our findings advance the previous research in three distinct ways. First, the paper takes the research on the quantitative measurement of institutions in a new direction: the study of

courts. Finding objective measures of institutional structure is sometimes more useful than just focusing on survey assessments of quality, as is often done, because it may point to the specific directions of efficiency-improving reform. Second, with respect to the study of courts, the paper is novel in attributing both their efficiency and their ability to deliver justice to the characteristics of the legal procedure, rather than to general underdevelopment of the country or to poor incentives. Third, the paper links both the lack of efficiency of courts and their inability to deliver justice to the transplantation of legal systems. As such, it supports the hypothesis that transplantation is in part responsible for the structure and quality of the existing institutions.

II. Theories of Procedural Formalism

According to Shapiro [1981], the essence of an idealized universal court is the resolution of a dispute among two neighbors by a third, guided by common sense and custom. Such resolution does not rely on formal law and does not circumscribe the procedures that the neighbors employ to address their differences. Yet courts everywhere deviate from this ideal. They employ professional judges and lawyers to resolve disputes. They heavily regiment procedures, restricting how claims and counterclaims are presented, how evidence is interpreted, and how various parties communicate with each other. Rather than holding an informal meeting, many courts assemble written records of the proceedings, and allow disputants to appeal the decisions of a judge. Most jurisdictions, in short, heavily regulate their civil procedures.

The reasons for regulating dispute resolution are similar to those for regulation in general: the sovereign may wish to control the outcome. He may wish to punish some conduct to a greater extent than a judge-neighbor would, to establish precedents, or to reduce errors relative to informal adjudication. He may also wish that disputes be resolved in a consistent way across his domains, so as to promote trade or political uniformity. Finally, he may wish disputes to be resolved so as to favor himself and his political supporters, or to punish his enemies and opponents. To achieve these goals, sovereigns regulate the judicial procedure so that "judges are no more than the mouth that pronounces the words of the law, mere passive beings, incapable of moderating either its force or rigour" [Montesquieu 1748, 1984, p. 194].

A further reason to regulate dispute resolution is that infor-

mal triad justice is vulnerable to subversion by the powerful. If one of the two disputants is economically or politically more powerful than the other, he can encourage the supposedly impartial judge to favor him, using either bribes or threats. The other side of this coin is access to justice: the less advantaged members of a society must expect justice rather than abuse from the state or powerful opponents. As the great German jurist Rudolf von Jhering exclaimed, "form is the sworn enemy of arbitrary rule, the twin sister of liberty" [1898, p. 471].

For these, and possibly other reasons, most jurisdictions in the world heavily formalize legal procedures. Moreover, as legal historians clearly recognize, patterns of such regulation are intimately related to the civil versus common law origin of the country's laws. These legal families originate in Roman and English law, respectively, and were transplanted to many countries through conquest and colonization (by France, Germany, and Spain in the case of civil law, and England in the case of common law). Although legal systems of most countries have evolved since colonial times, key features of legal origin are often preserved through the centuries [La Porta et al. 1998, 1999].

There are different theories of how legal origin has shaped legal procedure in general, and formalism in particular. Hayek [1960] and Merryman [1985] attribute the differences to the ideas of the Enlightenment and the French Revolution. In France the revolutionaries and Napoleon did not trust the judges, and codified judicial procedures in order to control judicial discretion. According to Schlesinger et al. [1988], in civil law countries "the procedural codes are meant to be essentially all-inclusive statements of judicial powers, remedies, and procedural devices." Consistent with von Jhering's logic, procedural formalism was seen as a guarantee of freedom. In England and the United States, in contrast, lawyers and judges were on the "right" side of the revolutions, and hence the political process accommodated a great deal more judicial independence. In the common law tradition, "a code is supplemental to the unwritten law, and in construing its provisions and filling its gaps, resort must be had to the common law" [Schlesinger et al. 1988]. As a consequence, less formalism is required in the judicial procedure.

Dawson [1960], Berman [1983], Damaska [1986], and Glaeser and Shleifer [2002] argue that the procedural differences between common and civil law actually go back to the twelfth and thirteenth centuries. Glaeser and Shleifer [2002] attribute

greater formalism to the need to protect law enforcers from coercion by disputing parties through violence and bribes. This risk of coercion was greater in the less peaceful France than in the more peaceful England, where neighborly dispute resolution by juries (coming closer to Shapiro's ideal) was more feasible. The different approaches to legal procedure—motivated by the different law and order environments of England and France—were then transplanted through conquest and colonization to most of the rest of the world [Watson 1974; La Porta et al. 1998; Berkowitz, Pistor, and Richard 2003].

The fact that most countries inherited significant parts of their legal procedures— often involuntarily—is important for our analysis. At the econometric level, it suggests that legal origin can be used as an instrument for the degree of formalism of the legal procedure. At the substantive level, the nature of transplantation enables us to distinguish two hypotheses. If countries select their legal procedures voluntarily, then one can argue that greater formalism is an efficient adaptation to a weaker law and order environment. However, if legal procedures are transplanted through conquest or colonization, the efficient adaptation model does not apply. Rather, we can attribute the consequences of legal formalism to the exogenously determined features of the legal procedure, and in this way consider the efficiency of alternative rules.

III. DATA

III.A. Collection Procedures

Our data are derived from questionnaires answered by attorneys at Lex Mundi and Lex Africa member firms. Lex Mundi and Lex Africa are international associations of law firms, which include as their members law firms with offices in 115 countries. Of these 115 countries, Lex Mundi members in six did not accept our invitation to join the project, and these six jurisdictions (Burkina Faso, Cambodia, Nicaragua, Northern Ireland, Scotland, and St. Kitts and Nevis) were removed from the sample. We have received and codified data from all the others.

The 109 cooperating law firms received a questionnaire designed by the authors with the advice of practicing attorneys from Argentina, Belgium, Botswana, Colombia, Mexico, and the United States. The questionnaire covered the step-by-step evolu-

tion of an eviction and a check collection procedure before local courts in the country's largest city. The focus on these two specific disputes has a number of advantages. First, they represent typical situations of default on an everyday contract in virtually every country. The adjudication of such cases illustrates the enforcement of property rights and private contracts in a given legal environment. Second, the case facts and procedural assumptions could be tailored to make the cases comparable across countries. Third, the resolution of these cases involves lower level civil trial courts in all countries (unless Alternative Dispute Resolution is used). Because these are the courts whose functioning is most relevant to many of a country's citizens, the focus on the quality of such courts is appropriate in a development context. For more complex disputes, additional issues arise, and it may not be appropriate to generalize our findings. For example, commercial arbitration is available in many countries to large companies, though not to ordinary citizens. Perhaps even more importantly, formalism may be essential for justice in complex disputes even when informality is adequate for the simple cases we consider.[3]

In presenting the cases, we provided the respondent firm with significant detail, including the amount of the claim, the location and main characteristics of the litigants, the presence of city regulations, the nature of the remedy requested by the plaintiff, the merit of the plaintiff's and the defendant's claims, and the social implications of the judicial outcomes. Furthermore, to understand how courts work, we specified that there is no settlement. These standardized details enabled the respondent law firms to describe the procedures explicitly and in full detail, and allowed us to get around the problem that different procedures arise in different circumstances.[4]

The questionnaires provided to law firms were divided into two parts: (1) description of the procedure of the hypothetical case step by step, and (2) multiple-choice questions. The following aspects of the procedure were covered: (1) step-by-step descrip-

---

3. The collection of a bounced check also gets us away from the concern that rules governing the eviction of a nonpaying tenant are shaped by a nation's "socialist" sentiment. The fact that the structures of dispute resolution for eviction and check collection are so similar is inconsistent with the view that socialism drives the results.
4. We have discovered that attorneys in even the largest law firms in most countries are familiar with eviction and check collection procedures, generally because they have worked on such cases for their clients.

tion of the procedure, (2) estimates of the actual duration at each stage, (3) indication of whether written submissions were required at each stage, (4) indication of specific laws applicable at each stage, (5) indication of mandatory time limits at each stage, (6) indication of the form of the appeal, and (7) the existence of alternative administrative procedures. Multiple-choice questions were used both to collect additional information and to check the answers at the initial stage. In addition, we asked questions about the incentives of judges, attorneys, and the litigants.

At each firm, the answers were prepared by a member of the Litigation Department, and reviewed by a member of the General Corporate and Commercial Department. Two lawyers in each law firm, from different departments, were required to read, approve, and sign the questionnaire. As an additional check, the law firms were required to indicate when a particular law governed the relevant stage of the procedure, and to provide a copy of that law. The answers provided by member law firms were coded using the descriptions of the procedures and answers to multiple-choice questions. In most cases, coding was followed by an additional round of questions to the completing attorneys aimed to clarify the inconsistencies in their answers.

III.B. Measuring Formalism

Comparative law textbooks and manuals of civil procedure point to several areas where the laws of different countries regulate dispute resolution differently. In our choice of the areas of such regulation, we were guided by the 1994 *International Encyclopaedia of Laws—Civil Procedure* published by Kluwer Law International. *The Encyclopaedia* covers seventeen countries from different legal origins, and discusses such broad areas of civil procedure as judicial organization, jurisdiction, actions and claims, nature of proceedings, legal costs, evidence, enforcement of judgments, and arbitration. Some of the areas covered in the *Encyclopaedia* were not relevant to the simple disputes we considered. Others, such as Alternative Dispute Resolution, are covered briefly in our survey, although we focus on courts. Appendix 1 presents the relationship between the topics covered in the *Encyclopaedia*'s volume on Civil Procedure for France and the indices used in this paper.

We focus on seven areas of formalism, and codify the answers provided by Lex Mundi firms from the perspective of the neighbor model. Below, we briefly describe our approach to organizing

these data. The exact definitions of the variables are contained in Table I.

The first area covers the required degree of professionalism of the main actors in the judicial process, namely judges and lawyers. This covers three specific areas. First, a basic jurisdictional distinction is between general and specialized courts. For the simple cases we consider, access to specialized courts generally entails procedural simplification aimed at "mass production" (similar to traffic courts in the United States). We therefore take the resolution of disputes in specialized courts to be closer to the neighbor model than that in a general jurisdiction court.

Second, we distinguish between judges who have undergone complete professional training, and arbitrators, administrative officers, practicing attorneys, merchants, or any other laypersons who may be authorized to hear or decide the case. In some countries (e.g., New Zealand, United Arab Emirates) all disputes between landlords and tenants are resolved by housing tribunals composed of neighbors or by representatives of associations of landlords and tenants. Such nonprofessional judges are closer to the neighbor model.

Third, in some countries it is mandatory to have an attorney to appear before the judge, while in others it is entirely voluntary or even prohibited. Evidently, the absence of legal representation is closer to the neighbor model. Indeed, in the absence of such representation, the judge frequently assumes the position of a mediator guiding the parties to an agreement.

Using the data provided by law firms, we combine these three pieces of information to construct the "professional versus laymen" index for each of the two disputes for each country.

The second area we consider is the preeminence of written versus oral presentation at each stage of the procedure, including filing, service of process, defendant's opposition, evidence, final arguments, judgment, notification of judgment, and enforcement of judgment. We take oral presentation to be closer to the neighbor model, and aggregate this information for each country and each case into the index of "written versus oral" elements.

The third area is the need for legal justification (meaning reference to the legal reasons and articles of the law) in the complaint and in the judgment, as well as the necessity of basing the judgment in the law as opposed to equity. In many countries a judgment must be justified by statutory law or settled precedents. In other countries judgment must still be justified, but in

<center>TABLE I</center>
<center>DESCRIPTION OF THE VARIABLES</center>

This table describes the variables in the paper. Unless otherwise specified, the source for the variables is the survey of law firms and the laws of each country. All the data for each country can be found at http://iicg.som.yale.edu/.

Variable	Description
Professionals versus laymen	
General jurisdiction court	The variable measures whether a court of general or of limited jurisdiction would be chosen or assigned to hear the case under normal circumstances. We define a court of general jurisdiction as a state institution, recognized by the law as part of the regular court system, generally competent to hear and decide regular civil or criminal cases. A limited jurisdiction court would hear and decide only some types of civil cases. Specialized debt-collection or housing courts, small-claims courts, and arbitrators or justices of the peace are examples. Equals one for a court of general jurisdiction, and zero for a court of limited jurisdiction.
Professional versus nonprofessional judge	The variable measures whether the judge, or the members of the court or tribunal, could be considered as professional. A professional judge is one who has undergone a complete professional training as required by law, and whose primary activity is to act as judge or member of a court. A nonprofessional judge is an arbitrator, administrative officer, practicing attorney, merchant, or any other layperson who may be authorized to hear and decide the case. Equals one for a professional judge, and zero for a nonprofessional judge.
Legal representation is mandatory	The variable measures whether the law requires the intervention of a licensed attorney. The variable equals one when legal representation is mandatory, and zero when legal representation is not mandatory.
Index: professionals versus laymen	The index measures whether the resolution of the case relies on the work of professional judges and attorneys, as opposed to other types of adjudicators and lay people. The index is the normalized sum of (i) general jurisdiction court, (ii) professional versus nonprofessional judge, and (iii) legal representation is mandatory. The index ranges from zero to one, where higher values mean more participation by professionals.

TABLE I

(CONTINUED)

Variable	Description
	Written Versus Oral
Filing	Equals one if the complaint is normally submitted in written form to the court, and zero if it can be presented orally.
Service of process	Equals one if the defendant's first official notice of the complaint is most likely received in writing, and zero otherwise.
Opposition	Equals one if under normal circumstances the defendant's answer to the complaint should be submitted in writing, and zero if it may be presented orally to court.
Evidence	Equals one if evidence is mostly submitted to the court in written form, in the form of attachments, affidavits, or otherwise, and zero if most of the evidence, including documentary evidence, is presented at oral hearings before the judge.
Final arguments	Equals one if final arguments on the case are normally submitted in writing, and zero if they are normally presented orally in court before the judge.
Judgment	Equals one if the judge issues the final decision in the case in written form, and zero if he issues it orally in an open court hearing attended by the parties. The defining factor is whether the judge normally decides the case at a hearing. If the judge simply reads out a previously made written decision, the variable equals one. Conversely, for an orally pronounced judgment that is later transposed into writing for enforcement purposes, the variable equals zero.
Notification of judgment	Equals one if normally the parties receive their first notice of the final decision in written form, by notice mailed to them, publication in a court board or gazette, or through any other written means. The variable equals zero if they receive their first notice in an open court hearing attended by them.
Enforcement of judgment	Equals one if the enforcement procedure is mostly carried out through the written court orders or written acts by the enforcement authority, and zero otherwise.

TABLE I
(CONTINUED)

Index: Written versus oral elements	The index measures the written or oral nature of the actions involved in the procedure, from the filing of the complaint until the actual enforcement. The index is calculated as the number of stages carried out mostly in written form over the total number of applicable stages, and it ranges from zero to one, where higher values mean higher prevalence of written elements.

Legal justification

Complaint must be legally justified	The variable measures whether the complaint is required, by law or court regulation, to include references to the applicable laws, legal reasoning, or formalities that would normally require legal training. Equals one for a legally justified complaint, and zero when the complaint does not require legal justification (specific articles of the law or case-law).
Judgment must be legally justified	The variable measures whether the judgment must expressly state the legal justification (articles of the law or case-law) for the decision. Equals one for a legally justified judgment, and zero otherwise.
Judgment must be on law (not on equity)	The variable measures whether the judgment may be motivated on general equity grounds, or if it must be founded on the law. Equals one when judgment must be on law only, and zero when judgment may be based on equity grounds.
Index: legal justification	The index measures the level of legal justification required in the process. The index is formed by the normalized sum of (i) complaint must be legally justified, (ii) judgment must be legally justified, and (iii) judgment must be on law (not on equity). The index ranges from zero to one, where higher values mean a higher use of legal language or justification.

Statutory regulation of evidence

Judge cannot introduce evidence	Equals one if, by law, the judge cannot freely request or take evidence that has not been requested, offered, or introduced by the parties, and zero otherwise.

TABLE I

(CONTINUED)

Variable	Description
Judge cannot reject irrelevant evidence	Equals one if, by law, the judge cannot refuse to collect or admit evidence requested by the parties, even if she deems it irrelevant to the case, and zero otherwise.
Out-of-court statements are inadmissible	Equals one if statements of fact that were not directly known or perceived by the witness, but only heard from a third person, may not be admitted as evidence. The variable equals zero otherwise.
Mandatory prequalification of questions	Equals one if, by law, the judge must prequalify the questions before they are asked of the witnesses, and zero otherwise.
Oral interrogation only by judge	Equals one if parties and witnesses can only be orally interrogated by the judge, and zero if they can be orally interrogated by the judge and the opposing party.
Only original documents and certified copies are admissible	Equals one if only original documents and "authentic" or "certified" copies are admissible documentary evidence, and zero if simple or uncertified copies are admissible evidence as well.
Authenticity and weight of evidence defined by law	Equals one if the authenticity and probative value of documentary evidence is specifically defined by the law, and zero if all admissible documentary evidence is freely weighted by the judge.
Mandatory recording of evidence	Equals one if, by law, there must be a written or magnetic record of all evidence introduced at trial, and zero otherwise.
Index: statutory regulation of evidence	The index measures the level of statutory control or intervention of the administration, admissibility, evaluation, and recording of evidence. The index is formed by the normalized sum of the following variables: (i) judge cannot introduce evidence, (ii) judge cannot reject irrelevant evidence, (iii) out-of-court statements are inadmissible, (iv) mandatory prequalification of questions, (v) oral interrogation only by judge, (vi) only original documents and certified copies are admissible, (vii) authenticity and weight of evidence defined by law, and (viii) mandatory recording of evidence. The index ranges from zero to one, where higher values mean a higher statutory control or intervention.

TABLE I
(CONTINUED)

Control of superior review

Enforcement of judgment is automatically suspended until resolution of the appeal	Equals one if the enforcement of judgment is automatically suspended until resolution of the appeal when a request for appeal is granted. Equals zero if the suspension of the enforcement of judgment is not automatic, or if the judgment cannot be appealed at all.
Comprehensive review in appeal	Equals one if issues of both law and fact (evidence) can be reviewed by the appellate court. Equals zero if only new evidence or issues of law can be reviewed in appeal, or if judgment cannot be appealed.
Interlocutory appeals are allowed	Equals one if interlocutory appeals are allowed, and zero if they are always prohibited. Interlocutory appeals are defined as appeals against interlocutory or interim judicial decisions made during the course of a judicial proceeding in first instance and before the final ruling on the entire case.
Index: control of superior review	The index measures the level of control or intervention of the appellate court's review of the first-instance judgment. The index is formed by the normalized sum of the following variables: (i) enforcement of judgment is automatically suspended until resolution of appeal, (ii) comprehensive review in appeal, and (iii) interlocutory appeals are allowed. The index ranges from zero to one, where higher values mean higher control or intervention.

Engagement formalities

Mandatory pretrial conciliation	Equals one if the law requires plaintiff to attempt a pretrial conciliation or mediation before filing the lawsuit, and zero otherwise.
Service of process by judicial officer required	Equals one if the law requires the complaint to be served to the defendant through the intervention of a judicial officer, and zero if service of process may be accomplished by other means.

TABLE I
(CONTINUED)

Variable	Description
Notification of judgment by judicial officer required	Equals one if the law requires the judgment to be notified to the defendant through the intervention of a judicial officer, and zero if notification of judgment may be accomplished by other means.
Index: engagement formalities	The index measures the formalities required to engage someone in the procedure or to hold him/her accountable of the judgment. The index is formed by the normalized sum of the following variables: (i) mandatory pretrial conciliation, (ii) service of process by judicial officer required, and (iii) notification of judgment by judicial officer required. The index ranges from zero to one, where higher values mean a higher statutory control or intervention in the judicial process.

Independent procedural actions

Variable	Description
Filing and service	The total minimum number of independent procedural actions required to complete filing, admission, attachment, and service.
Trial and judgment	The total minimum number of independent procedural actions required to complete opposition to the complaint, hearing or trial, evidence, final arguments, and judgment.
Enforcement	The total minimum number of independent procedural actions required to complete notification and enforcement of judgment.

TABLE I
(CONTINUED)

Index: independent procedural actions	An independent procedural action is defined as a step of the procedure, mandated by law or court regulation, that demands interaction between the parties or between them and the judge or court officer (e.g., filing a motion, attending a hearing, mailing a letter, or seizing some goods). We also count as an independent procedural action every judicial or administrative writ or resolution (e.g., issuing judgment or entering a writ of execution) which is legally required to advance the proceedings until the enforcement of judgment. Actions are always assumed to be simultaneous if possible, so procedural events that may be fulfilled in the same day and place are only counted as one action. To form the index, we (1) add the minimum number of independent procedural actions required to complete all the stages of the process (from filing of lawsuit to enforcement of judgment); and (2) normalize this number to fall between zero and one using the minimum and the maximum number of independent procedural actions among the countries in the sample. The index takes a value of zero for the country with the minimum number of independent procedural actions, and a value of one for the country with the maximum number of independent procedural actions.

Formalism index

Formalism index	The index measures substantive and procedural statutory intervention in judicial cases at lower-level civil trial courts, and is formed by adding up the following indices: (i) professionals versus laymen, (ii) written versus oral elements, (iii) legal justification, (iv) statutory regulation of evidence, (v) control of superior review, (vi) engagement formalities, and (vii) independent procedural actions. The index ranges from zero to seven where seven means a higher level of control or intervention in the judicial process.

TABLE I
(CONTINUED)

Variable	Description
Incentives of parties	
Mandatory time limit for admission	Equals one if the judge is required by law to admit or reject the lawsuit within a certain period of time, and zero otherwise.
Mandatory time limit to present evidence	Equals one if the period in which the parties may collect or present evidence is fixed by law to a certain number of days after service or number of days before hearing, and zero otherwise.
Mandatory time limit to present defense	Equals one if the defendant is required by law to file the opposition within certain time limit, either in terms of number of days from service or number of days before the hearing. The variable equals zero otherwise.
Mandatory time limit to present defense	Equals one if the defendant is required by law to file the opposition within certain time limit, either in terms of number of days from service or number of days before the hearing. The variable equals zero otherwise.
Mandatory time limit for judgment	Equals one if the judge is required by law to enter judgment within a specified period of time after the conclusion of the hearing or the final pleadings, and zero otherwise.
Mandatory time limit for notification of judgment	Equals one if the court is required by law to notify the parties within a specified period of time after judgment is entered, and zero otherwise.
Index: mandatory time limits	The presence of mandatory time limits in the procedure. The index is calculated as the average of (i) term for admission, (ii) term to present evidence, (iii) term to present defense, (iv) term for judgment, (v) term for compliance, (vi) term for notification of judgment. The index ranges from zero to one, where higher values mean more mandatory deadlines.
Quota litis prohibited	The variable equals one if quota litis or contingent fee agreements are prohibited by law in all cases, and zero otherwise.
Loser pays rule	The variable equals one if the loser is required to pay all the costs of the dispute, and zero otherwise.

TABLE I
(CONTINUED)

Duration in practice

Duration until completion of service of process	Estimated duration, in calendar days, between the moment the plaintiff files the complaint until the moment of service of process to the defendant.
Duration of trial	Estimated duration, in calendar days, between the moment of service of process and the moment the judgment is issued.
Duration of enforcement	Estimated duration, in calendar days, between the moment of issuance of judgment and the moment the landlord repossesses the property (for the eviction case) or the creditor obtains payment (for the check collection case).
Total duration	The total estimated duration in calendar days of the procedure under the factual and procedural assumptions provided. It equals the sum of (i) duration until completion of service of process, (ii) duration of trial, and (iii) duration of enforcement.

Other judicial quality measures

Enforceability of contracts	"The relative degree to which contractual agreements are honored and complications presented by language and mentality differences." Scale for 0 to 10, with higher scores indicating higher enforceability. *Source: Business Environmental Risk Intelligence.* Exact definition in *Knack and Keefer [1995].*
Legal system is fair and impartial	"In resolving business disputes, do you believe your country's court system to be fair and impartial?" The scale ranges from 1 to 6, where higher scores mean a fairer and more impartial legal system. *Source: World Business Environment Survey [2000, 2002].*
Legal system is honest or uncorrupt	"In resolving business disputes, do you believe your country's court system to be honest/uncorrupt?" The scale ranges from 1 to 6, where a higher score signals a more honest and uncorrupt system. *Source: World Business Environment Survey.*

TABLE I

(CONTINUED)

Variable	Description
Legal system is affordable	"In resolving business disputes, do you believe your country's court system to be affordable?" The scale ranges from 1 to 6, where a higher score means a more affordable legal system. *Source: World Business Environment Survey.*
Legal system is consistent	"In resolving business disputes, do you believe your country's court system to be consistent?" The scale ranges from 1 to 6, where a higher score means a more consistent legal system. *Source: World Business Environment Survey.*
Confidence in legal system	The questionnaire asks the managers the degree to which they believe the system will uphold contracts and property rights in a business dispute. The scale ranges from 1 to 6, where a higher score means a higher degree of confidence on the system. *Source: World Business Environment Survey.*
Corruption	A composite index for the year 2000 that draws on fourteen data sources from seven institutions: the World Economic Forum, the World Business Environment Survey of the World Bank, the Institute of Management Development (in Lausanne), PricewaterhouseCoopers, the Political and Economic Risk Consultancy (in Hong Kong), the Economist Intelligence Unit and Freedom House's Nations in Transit. The score ranges between 10 (highly clean) and 0 (highly corrupt). *Source: Transparency International (www.transparency.org).*
Law and order	Integrity of legal system in 2000. This component is based on the Political Risk Component 1 (Law and Order) from the PRS Group's International Country Risk Guide (various issues). Rankings are modified to a ten-point scale. *Source: Economic Freedom of the World [Gwartney, Lawson, and Block 2001].*

Variable	Description
	Other variables
Log of GNP per capita	Logarithm of GNP per capita in 1999, Atlas method, expressed in current US dollars. When 1999 income data in US dollars were not available, the latest available number was used (1996 for Kuwait, 1997 for Cayman Islands, Gibraltar, Turks and Caicos Island, 1998 for Anguilla, Bahrain, Netherlands Antilles, United Arab Emirates). Income for Anguilla, the British Virgin Islands, the Cayman Islands, Gibraltar, Monaco, the Netherlands Antilles, and the Turks and Caicos Islands is GDP per capita (PPP) from the CIA World Factbook. *Source: World Development Indicators [2001].*
Legal origin	Identifies the legal origin of the company law or commercial code of each country (English, French, Socialist, German, Scandinavian). *Source: La Porta et al. [1999].*
Latitude	The absolute value of the latitude of the capital of the country, scaled to take values between zero and one. *Source: CIA Factbook.*
Average years of schooling	Average number of years of schooling received per person aged 25 and over in 1992 (last available). *Source: Human Development Report [1994].*
Ethnic fractionalization	Ethnic fractionalization is computed as one minus the Herfindahl index of ethnic group shares. This calculation considers the probability that two persons, randomly chosen, from a population belong to different groups. *Source: Alesina et al. [2003].*

equity rather than in law. In still other countries, judicial decisions require no justification whatsoever. Since the neighbor model presumably does not call for such legal justifications, we aggregate this information into an index of "legal justification."

The fourth area is statutory regulation of evidence. The rules of evidence are sometimes considered to be a key factor in differentiating the overall efficiency of legal procedures among countries [Langbein 1985]. First, in some countries the judge cannot

request evidence not requested by the parties, a restriction on the neighbor model. Second, the judge in some countries cannot refuse to collect or admit evidence requested by the parties, even if the judge feels this evidence is irrelevant to the case. This, too, presents a restriction on the discretion of the judge in the neighbor model. Third, hearsay evidence is not admissible in some countries while, in others, the judge can weigh it. Presumably, the inadmissibility of out-of-court statements is a restriction on judicial freedom in the neighbor model. Fourth, in some jurisdictions the judge must prequalify a question before it is posed to the witness while, in others, parties may ask witnesses questions without such prequalification. We take the latter scenario as more compatible with the neighbor model. Fifth, in some jurisdictions, only original documents and certified copies are admissible, a restriction not present in other jurisdictions. Presumably, the neighbor model would not have these restrictions. Sixth, in some countries authenticity and the weight of evidence are defined by law; in others they are not. In the neighbor model, we would not expect the evidence to be subjected to rigid rules on admissibility and weight. Seventh, in some countries, but not others, there is mandatory recording of evidence, designed to facilitate the superior authority's control over the judge. We do not take such recording to be consistent with the neighbor model. As before, we aggregate these seven dimensions into the index of "statutory regulation of evidence."

The fifth area of regulation of formalism is the control of the superior review of the first instance judgment. The scope of appellate review determines the level of sovereign control over the trial court proceedings [Damaska 1986]. In general, we take the control of a judge by a superior court as inconsistent with the neighbor model, and consider a variety of mechanisms of superior review. First, in some countries the enforcement of judgment is automatically suspended until the resolution of the appeal, which substantially reduces the importance of the first instance judgment. In others, the suspension of enforcement is either nonautomatic, or even not allowed. We take the automatic suspension as being inconsistent with the neighbor model. Second, in some countries the review and appeal of judicial decisions are comprehensive. In others, more compatibly with the neighbor model, only new evidence or issues of law can be reviewed on appeal, or the judgment cannot be appealed at all. Third, some countries, but not others, allow interlocutory appeals (those of interim ju-

dicial decisions), which we take to be incompatible with the neighbor model. We aggregate these three aspects of review into an "index of control of superior review."

The sixth area is engagement formalities that must be observed before a party is legally bound by the court proceedings. In some countries a lawsuit cannot be initiated unless a formal pretrial conciliation is attempted between the parties. The notification procedures also vary markedly among countries. In some places, the complaint can be notified to the defendant by the plaintiff himself or by his attorney, or simply by mailing a letter. In others, the defendant cannot be held accountable unless he is served the claim by an appointed court officer. Finally, in some countries the judgment is deemed notified to the parties when pronounced in open court; in others it must be personally notified to the parties by a duly appointed court employee. We submit that entirely voluntary pretrial conciliation and flexible rules of notification of process and judgment are more compatible with the neighbor model. These three dimensions are aggregated into the index of "engagement formalities."

The seventh area is the count of independent procedural actions involved in pursuing a claim through a court, covering the filing and service of a complaint, trial and judgment, and enforcement. An independent procedural action is defined as every step in the procedure, mandated by the law or by court regulation, which demands interaction between the parties or between them and the judge or court officer, such as filing a motion or attending a hearing. We also count as an independent procedural action every judicial or administrative writ or resolution, such as issuing judgment or entering a writ of execution, which is legally required to advance the proceedings until the enforcement of judgment. Actions are always assumed to be simultaneous if possible, so procedural events that may be fulfilled in the same day and place are only counted as one action.[5] In the idealized neighbor model, there would be only three procedural actions: (1) a claimant would request the judge's intervention, (2) the judge and the claimant would together meet the defendant and the judge would

5. We only count the minimum number of independent procedural actions required to bring the case to completion. Thus, the appointment of a lawyer is only counted as a step if legal representation is mandatory. Notifications of interlocutory decisions that do not require further interaction between the parties and the judge or court officer (as when the clerk makes an entry into the notification book) are not counted as separate steps since they are ancillary to the decision.

issue a decision following a discussion, and (3) the judgment would be enforced. As the evidence below shows, in some countries checks can be collected and tenants evicted in just 8 or 9 steps, while in others it takes 40 to 45 steps—a far cry from the neighbor model. We aggregate these counts into an index of "independent procedural actions" and normalize the index to fall between zero and one based on the minimum and the maximum number of actions among countries.

Having assembled the data, we combine the seven subindexes into the index of formalism. We scale each subindex to fall between zero and one, so the formalism index falls between zero and seven, with seven representing, according to our conception, the greatest distance from the neighbor model. The exact method of the construction of the formalism index is not crucial, since the various subindexes generally point in the same direction as to which countries regulate adjudication more heavily.

III.C. Other Variables

Our data contain information on the quality of dispute resolution. One measure of quality is an estimate—in calendar days—of duration of dispute resolution by the lawyers who completed the questionnaires. Duration is measured as the number of calendar days counted from the moment the plaintiff files the lawsuit in court, until the moment of actual repossession (eviction) or payment (check). This measure includes both the days where actions take place and waiting periods between actions. The participating firms make separate estimates of the average duration until the completion of service of process, the issuance of judgment (duration of trial), and the moment of payment or repossession (duration of enforcement).[6] To the extent that we are interested in the ability of ordinary persons to use the legal system, these estimates of duration are highly relevant for efficiency.

In addition to the data from the questionnaires, we use data from surveys of business people on the quality of the legal system. These include measures of the enforceability of contracts, corruption, and "law and order." In addition, we use information from small firm assessments of various aspects of the quality of the legal system, including consistency, honesty, and fairness, con-

---

6. Law firms also provide us with estimates of the minimum and the maximum amount of time in calendar days each case could take given its specifics. This request helped lawyers to focus on the *average* length of time and not just think about the worst or best case they had encountered.

tained in the World Business Environment Survey. These data will be used to shed light on the crucial question: does formalism secure justice?

Finally, we assemble some data to examine alternative hypotheses concerning the determinants of judicial quality. From Lex Mundi member firms, we get data on whether judges face mandatory time deadlines, whether lawyers are allowed to charge contingency fees, and whether losers in civil disputes must pay the winners' legal fees. We also obtain data on 1999 per capita income in each country, the average years of schooling, and ethno-linguistic and religious fractionalization. Fractionalization measures are used as controls because studies find that fractionalization has adverse consequences for institutional performance [La Porta et al. 1999; Alesina et al. 2003].

IV. FORMALISM AND ITS DETERMINANTS

Table II presents our data on procedural formalism, with subindexes and the overall index. Table IIa focuses on eviction, and Table IIb on check collection. Countries are arranged by legal origin, and we report the means for each legal origin and the tests of the differences in these means. For both check collection and eviction, common law countries have least formalized, and French civil law countries most formalized, dispute resolution, with other legal origins in the middle. For eviction, the differences hold for all subindexes, but are stronger in some areas (legal justification, number of independent procedural actions) than in others (evidence, superior review). The differences in formalism among civil law countries (French, German, socialist, and Scandinavian) are less pronounced, and typically not as statistically significant (except that German and Scandinavian origin countries regulate less heavily than socialist and French ones). For check collection the pattern of results is similar, except that one of the subindexes is lower in French civil law countries than in common law countries. The rankings of legal origins hold also within per capita income quartiles. These findings are broadly consistent with the thrust of the comparative law literature.

Table III examines the consistency of this evidence across the various subindexes measuring alternative aspects of procedural formalism, as well as across the two cases. The evidence shows a clear picture of consistency. The various subindexes are positively correlated with the overall index within each case. Moreover,

TABLE IIa
EVICTION OF A TENANT

This table classifies countries by legal origin and shows the professionals versus laymen, written versus oral elements, legal justification, statutory regulation of evidence, control of superior review, and engagement formalities indices, and the normalized number of independent procedural actions for the case of eviction of a tenant. All variables are described in Table I, and the data can be found at http://iicg.som.yale.edu/.

	Professionals versus laymen	Written versus oral elements	Legal justification	Statutory regulation of evidence	Control of superior review	Engagement formalities	Independent procedural actions	Formalism index
English legal origin								
Anguilla	0.67	0.88	0.67	0.13	1.00	0.67	0.28	**4.28**
Australia	0.00	0.57	0.33	0.25	0.67	0.00	0.17	**1.99**
Bahrain	0.33	0.63	1.00	0.38	1.00	0.33	0.25	**3.92**
Bangladesh	0.33	0.63	0.67	0.13	1.00	0.33	0.28	**3.36**
Barbados	0.67	0.50	0.00	0.25	0.67	0.00	0.25	**2.33**
Belize	0.00	0.38	0.67	0.38	0.67	0.00	0.00	**2.08**
Bermuda	0.33	0.38	0.00	0.25	0.33	0.00	0.03	**1.32**
Botswana	0.67	0.75	0.67	0.38	0.67	0.67	0.28	**4.07**
BVI	0.67	0.50	0.33	0.38	0.67	0.00	0.33	**2.88**
Canada	0.00	0.75	0.33	0.38	0.33	0.33	0.19	**2.32**
Cayman	0.67	0.63	0.67	0.25	0.67	0.33	0.39	**3.60**
Cyprus	0.67	0.63	0.67	0.38	0.67	0.33	0.17	**3.50**
Ghana	0.67	0.50	0.00	0.50	0.33	0.33	0.36	**2.69**
Gibraltar	0.67	0.75	0.33	0.13	0.33	0.00	0.31	**2.51**
Grenada	0.33	0.38	0.67	0.38	0.67	0.33	0.11	**2.86**
Hong Kong	0.33	0.75	1.00	0.13	0.67	0.00	0.25	**3.13**

India	0.33	0.75	1.00	0.38	0.33	0.33	0.39	**3.51**
Ireland	0.67	0.71	0.33	0.13	1.00	0.00	0.36	**3.20**
Israel	0.67	0.88	1.00	0.50	0.67	0.00	0.19	**3.90**
Jamaica	0.67	0.38	0.33	0.25	0.67	0.00	0.08	**2.38**
Kenya	0.33	0.75	0.33	0.38	0.67	0.00	0.39	**2.85**
Malawi	0.33	0.63	0.67	0.38	0.67	0.33	0.14	**3.14**
Malaysia	0.67	0.63	0.33	0.50	0.67	0.00	0.42	**3.21**
Namibia	0.67	0.63	0.67	0.38	1.00	0.33	0.19	**3.86**
New Zealand	0.00	0.50	0.33	0.00	0.33	0.00	0.08	**1.25**
Nigeria	0.33	0.63	0.33	0.38	1.00	0.00	0.42	**3.08**
Pakistan	0.67	0.63	0.67	0.25	1.00	0.00	0.53	**3.74**
Singapore	0.67	0.63	0.33	0.38	0.67	0.00	0.44	**3.11**
South Africa	0.67	0.50	0.67	0.38	1.00	0.33	0.14	**3.68**
Sri Lanka	0.67	0.63	1.00	0.38	1.00	0.00	0.22	**3.89**
St. Vincent	0.67	0.50	0.67	0.38	0.67	0.67	0.31	**3.85**
Swaziland	0.67	0.63	1.00	0.25	1.00	0.00	0.19	**3.74**
Tanzania	0.33	0.63	0.33	0.50	0.67	0.33	0.11	**2.90**
Thailand	0.67	0.88	1.00	0.38	0.67	0.33	0.33	**4.25**
Trinidad and Tobago	0.67	0.63	0.00	0.25	0.33	0.00	0.28	**2.15**
Turks and Caicos	0.67	0.63	0.00	0.38	0.67	0.00	0.47	**2.81**
UAE	0.00	0.50	0.33	0.00	0.00	0.33	0.28	**1.44**
Uganda	0.00	1.00	0.33	0.38	0.67	0.00	0.14	**2.51**
United Kingdom	0.67	0.75	0.33	0.00	0.33	0.00	0.14	**2.22**
USA	0.33	0.63	1.00	0.13	0.67	0.00	0.22	**2.97**
Zambia	0.67	0.50	0.33	0.38	0.67	0.33	0.19	**3.07**
Zimbabwe	0.33	0.63	0.67	0.38	0.67	0.33	0.11	**3.11**
Mean	**0.48**	**0.63**	**0.52**	**0.30**	**0.67**	**0.17**	**0.25**	**3.02**

TABLE IIa
(CONTINUED)

	Professionals versus laymen	Written versus oral elements	Legal justification	Statutory regulation of evidence	Control of superior review	Engagement formalities	Independent procedural actions	**Formalism index**
Socialist legal origin								
Bulgaria	0.67	0.88	1.00	0.25	1.00	0.33	0.39	**4.51**
China	0.67	0.75	0.33	0.38	1.00	0.00	0.28	**3.40**
Croatia	0.67	0.63	1.00	0.25	0.67	0.00	0.22	**3.43**
Czech Republic	0.67	0.38	1.00	0.25	1.00	0.00	0.25	**3.54**
Estonia	0.67	0.75	1.00	0.38	1.00	0.67	0.28	**4.74**
Georgia	0.67	0.63	0.67	0.25	1.00	0.00	0.31	**3.51**
Hungary	0.67	0.75	1.00	0.13	0.67	0.00	0.25	**3.46**
Kazakhstan	0.67	0.63	0.67	0.38	1.00	0.00	0.67	**4.00**
Latvia	0.67	0.63	1.00	0.38	1.00	0.00	0.19	**3.86**
Lithuania	0.67	0.75	1.00	0.38	1.00	0.00	0.42	**4.21**
Poland	0.67	0.75	1.00	0.50	1.00	0.00	0.17	**4.08**
Romania	0.67	0.75	1.00	0.50	1.00	0.00	0.56	**4.47**
Russia	0.67	0.50	0.67	0.38	1.00	0.00	0.11	**3.32**
Slovenia	0.67	0.75	1.00	0.38	1.00	0.00	0.47	**4.26**
Ukraine	0.67	0.75	0.33	0.63	1.00	0.00	0.22	**3.60**
Vietnam	0.67	0.50	0.00	0.25	1.00	0.00	0.42	**2.83**
Mean	**0.67**	**0.67**	**0.79**	**0.35**	**0.96**	**0.06**	**0.32**	**3.83**
French legal origin								
Argentina	1.00	1.00	1.00	0.13	1.00	0.67	0.69	**5.49**
Belgium	0.67	0.75	0.33	0.25	0.67	0.33	0.17	**3.17**

Bolivia	1.00	1.00	0.67	0.25	1.00	0.67	0.53	**5.11**
Brazil	1.00	0.63	1.00	0.38	0.67	0.00	0.17	**3.83**
Chile	1.00	0.88	0.67	0.50	0.67	0.67	0.42	**4.79**
Colombia	0.67	1.00	1.00	0.25	0.00	0.33	0.69	**3.94**
Costa Rica	0.67	0.86	1.00	0.50	1.00	0.67	0.36	**5.05**
Cote D'Ivoire	0.67	0.50	0.67	0.25	0.67	0.67	0.22	**3.64**
Dominican Republic	0.33	0.63	1.00	0.38	1.00	0.67	0.36	**4.36**
Ecuador	0.67	0.88	1.00	0.63	0.67	0.33	0.47	**4.64**
Egypt	0.67	0.63	1.00	0.50	0.33	0.33	0.14	**3.60**
El Salvador	0.33	1.00	0.67	0.75	0.67	0.67	0.17	**4.25**
France	0.33	0.75	1.00	0.13	0.67	0.67	0.06	**3.60**
Greece	1.00	1.00	1.00	0.50	0.00	0.67	0.14	**4.31**
Guatemala	1.00	1.00	1.00	0.75	1.00	0.67	0.36	**5.78**
Honduras	0.67	1.00	1.00	0.63	0.67	0.33	0.39	**4.68**
Indonesia	0.33	0.88	0.67	0.50	0.67	0.33	0.50	**3.88**
Italy	1.00	1.00	0.67	0.13	0.67	0.67	0.11	**4.24**
Jordan	0.67	0.63	0.67	0.50	0.00	0.33	0.58	**3.38**
Kuwait	0.33	0.88	1.00	0.25	1.00	1.00	0.14	**4.69**
Lebanon	1.00	0.88	1.00	0.50	1.00	0.67	0.53	**5.57**
Luxembourg	0.33	0.86	0.67	0.50	1.00	0.00	0.31	**3.66**
Malta	0.67	0.63	0.67	0.38	0.67	0.33	0.08	**3.42**
Mexico	0.33	0.88	1.00	0.50	0.67	0.67	0.78	**4.82**
Monaco	0.33	0.63	0.67	0.25	0.33	0.67	0.06	**2.93**
Morocco	0.67	1.00	0.67	0.63	1.00	0.67	0.17	**4.79**
Mozambique	1.00	0.75	1.00	0.38	1.00	0.67	0.36	**5.15**
Netherlands	0.33	0.63	0.67	0.13	0.67	0.33	0.25	**3.00**
Netherlands Antilles	0.67	0.63	0.33	0.25	0.67	0.67	0.42	**3.63**
Panama	1.00	1.00	1.00	0.25	1.00	0.67	1.00	**5.92**
Paraguay	0.67	0.86	1.00	0.63	0.67	0.67	0.61	**5.09**

TABLE IIa
(CONTINUED)

	Professionals versus laymen	Written versus oral elements	Legal justification	Statutory regulation of evidence	Control of superior review	Engagement formalities	Independent procedural actions	**Formalism index**
Peru	1.00	0.88	1.00	0.38	1.00	0.67	0.50	**5.42**
Philippines	1.00	1.00	1.00	0.50	0.33	0.67	0.50	**5.00**
Portugal	1.00	0.75	1.00	0.38	1.00	0.00	0.42	**4.54**
Senegal	0.67	0.63	0.33	0.63	0.67	0.67	0.31	**3.89**
Spain	0.67	0.88	1.00	0.63	0.67	0.67	0.31	**4.81**
Tunisia	0.67	0.75	0.67	0.25	0.67	0.67	0.22	**3.89**
Turkey	0.67	0.63	1.00	0.75	0.00	0.00	0.44	**3.49**
Uruguay	1.00	0.50	0.67	0.13	0.67	0.33	0.69	**3.99**
Venezuela	1.00	1.00	1.00	0.50	1.00	0.67	0.64	**5.81**
Mean	**0.72**	**0.81**	**0.83**	**0.42**	**0.69**	**0.53**	**0.38**	**4.38**
German legal origin								
Austria	0.67	0.86	1.00	0.13	0.67	0.00	0.31	**3.62**
Germany	0.33	0.88	1.00	0.50	0.67	0.00	0.39	**3.76**
Japan	0.67	1.00	1.00	0.25	0.67	0.00	0.14	**3.72**
Korea	0.67	0.88	0.33	0.13	0.67	0.33	0.33	**3.33**
Switzerland	0.67	0.63	1.00	0.25	1.00	0.33	0.08	**3.96**
Taiwan	0.67	0.50	0.67	0.38	0.67	0.00	0.17	**3.04**
Mean	**0.61**	**0.79**	**0.83**	**0.27**	**0.72**	**0.11**	**0.24**	**3.57**

Scandinavian legal origin

Denmark	0.67	0.75	0.67	0.13	1.00	0.00	0.39	3.60
Finland	0.33	0.50	0.67	0.25	0.67	0.00	0.11	2.53
Iceland	0.67	0.38	1.00	0.38	0.67	0.33	0.06	3.47
Norway	0.67	0.75	0.67	0.13	1.00	0.33	0.17	3.71
Sweden	0.67	0.75	0.33	0.25	1.00	0.00	0.31	3.31
Mean	**0.60**	**0.63**	**0.67**	**0.23**	**0.87**	**0.13**	**0.21**	**3.32**
Mean for all countries	**0.58**	**0.71**	**0.68**	**0.33**	**0.71**	**0.27**	**0.30**	**3.58**
Tests of means (t-stats)								
English versus Socialist	−3.08[a]	−1.13	−2.89[a]	−1.31	−4.57[a]	1.87[c]	−1.98[c]	−3.87[a]
English versus French	−4.34[a]	−5.61[a]	−5.20[a]	−3.21[a]	−0.41	−7.07[a]	−3.38[a]	−7.77[a]
English versus German	−1.31	−2.53[b]	−2.29[b]	0.50	−0.54	0.70	0.22	−1.74[c]
English versus Scandinavian	−1.10	0.01	−0.98	1.20	−1.77[c]	0.42	0.72	−0.86
Socialist versus French	−0.78	−3.14[a]	−0.57	−1.27	3.38[a]	−7.00[a]	−0.94	−2.49[b]
Socialist versus German	1.71	−1.68	−0.28	1.31	4.12[a]	−0.57	1.29	1.10
Socialist versus Scandinavian	1.90[c]	0.65	0.80	2.07[c]	1.36	−0.76	1.57	1.93[c]
French versus German	0.98	0.35	0.00	1.81[c]	−0.24	4.09[a]	1.56	2.37[b]
French versus Scandinavian	0.99	2.44[b]	1.63	2.23[b]	−1.25	3.55[a]	1.72[c]	2.82[a]
German versus Scandinavian	0.13	1.48	1.06	0.59	−1.51	−0.21	0.39	1.04

a = significant at 1 percent level; b = significant at 5 percent level; c = significant at 10 percent level.

TABLE IIb
COLLECTION OF A CHECK

This table classifies countries by legal origin and shows the professionals versus laymen, written versus oral elements, legal justification, statutory regulation of evidence, control of superior review, and engagement formalities indices, and the normalized number of independent procedural actions for the case of collection of a check. All variables are described in Table I, and the data can be found at http://iicg.som.yale.edu/.

	Professionals versus laymen	Written versus oral elements	Legal justification	Statutory regulation of evidence	Control of superior review	Engagement formalities	Independent procedural actions	Formalism index
English legal origin								
Anguilla	0.00	0.38	0.33	0.13	1.00	0.00	0.13	**1.96**
Australia	0.00	0.50	0.33	0.25	0.67	0.00	0.05	**1.80**
Bahrain	0.33	0.75	1.00	0.75	1.00	0.33	0.24	**4.40**
Bangladesh	0.67	0.63	0.67	0.13	1.00	0.00	0.16	**3.24**
Barbados	0.33	0.38	0.33	0.25	0.67	0.33	0.08	**2.37**
Belize	0.00	0.38	0.00	0.38	0.67	0.00	0.00	**1.42**
Bermuda	0.33	0.38	0.00	0.25	0.33	0.33	0.16	**1.78**
Botswana	0.67	0.75	0.67	0.38	0.67	0.67	0.29	**4.08**
BVI	0.33	0.38	0.00	0.38	1.00	0.33	0.11	**2.52**
Canada	0.33	0.50	0.00	0.38	0.67	0.00	0.21	**2.09**
Cayman	0.67	0.63	0.33	0.25	0.67	0.00	0.21	**2.75**
Cyprus	0.67	0.63	0.67	0.38	0.67	0.33	0.34	**3.68**
Ghana	0.67	0.50	0.00	0.50	0.33	0.33	0.32	**2.65**
Gibraltar	0.67	0.75	0.33	0.13	0.33	0.00	0.18	**2.39**
Grenada	0.33	0.38	0.67	0.38	0.67	0.33	0.05	**2.80**
Hong Kong	0.00	0.63	0.00	0.00	0.00	0.00	0.11	**0.73**

India	0.67	0.63	1.00	0.38	0.33	0.00	0.34	**3.34**
Ireland	0.67	0.57	0.33	0.13	0.67	0.00	0.26	**2.63**
Israel	0.33	0.88	0.67	0.50	0.67	0.00	0.26	**3.30**
Jamaica	0.67	0.38	0.33	0.25	0.67	0.00	0.05	**2.34**
Kenya	0.67	0.63	0.33	0.38	0.67	0.33	0.42	**3.09**
Malawi	0.67	0.63	0.33	0.25	0.67	0.00	0.08	**2.95**
Malaysia	0.33	0.50	0.00	0.50	0.67	0.33	0.34	**2.34**
Namibia	0.67	0.63	0.67	0.38	1.00	0.00	0.16	**3.82**
New Zealand	0.00	0.50	0.33	0.00	0.67	0.33	0.08	**1.58**
Nigeria	0.33	0.63	0.33	0.38	0.67	0.00	0.53	**3.19**
Pakistan	0.67	0.63	0.67	0.25	1.00	0.33	0.55	**3.76**
Singapore	0.33	0.38	0.00	0.50	0.67	0.00	0.29	**2.50**
South Africa	0.00	0.38	0.33	0.25	0.67	0.00	0.05	**1.68**
Sri Lanka	0.67	0.86	0.67	0.38	1.00	0.33	0.21	**3.78**
St. Vincent	1.00	0.43	0.67	0.38	0.67	0.00	0.16	**3.63**
Swaziland	0.67	0.63	1.00	0.25	1.00	0.33	0.16	**3.70**
Tanzania	0.67	0.86	0.67	0.50	0.67	0.33	0.13	**3.82**
Thailand	0.33	0.50	0.67	0.38	0.67	0.00	0.26	**3.14**
Trinidad and Tobago	0.33	0.63	0.00	0.25	0.33	0.00	0.26	**1.80**
Turks and Caicos	0.00	0.25	0.00	0.38	1.00	0.00	0.24	**1.86**
UAE	1.00	0.88	1.00	0.13	0.33	0.00	0.47	**3.81**
Uganda	0.00	0.71	0.67	0.38	0.67	0.00	0.18	**2.61**
United Kingdom	0.67	0.71	0.33	0.13	0.67	0.00	0.08	**2.58**
USA	0.33	0.75	0.33	0.13	1.00	0.00	0.08	**2.62**
Zambia	0.00	0.57	0.33	0.38	0.67	0.00	0.18	**2.13**
Zimbabwe	0.33	0.63	0.67	0.38	0.67	0.33	0.11	**3.11**
Mean	**0.43**	**0.58**	**0.42**	**0.31**	**0.68**	**0.13**	**0.20**	**2.76**

TABLE IIb
(CONTINUED)

	Professionals versus laymen	Written versus oral elements	Legal justification	Statutory regulation of evidence	Control of superior review	Engagement formalities	Independent procedural actions	Formalism index
Socialist legal origin								
Bulgaria	0.67	0.88	1.00	0.25	1.00	0.33	0.45	**4.57**
China	0.67	0.75	0.33	0.38	1.00	0.00	0.29	**3.41**
Croatia	0.67	0.75	1.00	0.25	0.67	0.00	0.29	**3.62**
Czech Republic	0.67	0.83	1.00	0.38	1.00	0.00	0.18	**4.06**
Estonia	0.67	0.75	1.00	0.38	1.00	0.33	0.24	**4.36**
Georgia	0.67	0.63	0.67	0.25	0.67	0.00	0.21	**3.09**
Hungary	0.67	0.75	0.67	0.13	1.00	0.00	0.21	**3.42**
Kazakhstan	0.67	0.75	0.67	0.50	1.00	0.33	0.84	**4.76**
Latvia	0.67	0.63	1.00	0.38	1.00	0.00	0.26	**3.93**
Lithuania	0.67	0.75	1.00	0.50	1.00	0.00	0.55	**4.47**
Poland	0.67	0.88	1.00	0.38	1.00	0.00	0.24	**4.15**
Romania	0.67	0.75	1.00	0.50	1.00	0.00	0.50	**4.42**
Russia	0.67	0.50	0.67	0.38	1.00	0.00	0.18	**3.39**
Slovenia	0.67	0.75	1.00	0.50	1.00	0.00	0.34	**4.26**
Ukraine	0.67	0.75	0.33	0.63	1.00	0.00	0.29	**3.66**
Vietnam	0.67	0.50	0.33	0.25	1.00	0.00	0.50	**3.25**
Mean	**0.67**	**0.72**	**0.79**	**0.38**	**0.96**	**0.06**	**0.35**	**3.93**
French legal origin								
Argentina	1.00	1.00	1.00	0.13	1.00	0.67	0.61	**5.40**
Belgium	0.33	0.75	0.33	0.13	0.67	0.33	0.18	**2.73**

Bolivia	1.00	1.00	0.67	0.38	1.00	1.00	0.71	**5.75**
Brazil	0.33	0.50	1.00	0.38	0.67	0.00	0.18	**3.06**
Chile	1.00	0.75	0.67	0.50	0.67	0.67	0.32	**4.57**
Colombia	0.67	1.00	1.00	0.38	0.00	0.33	0.74	**4.11**
Costa Rica	1.00	1.00	1.00	0.50	1.00	0.67	0.32	**5.48**
Cote D'Ivoire	0.67	0.63	0.67	0.13	0.67	0.67	0.24	**3.65**
Dominican Republic	0.33	0.75	0.67	0.38	1.00	0.67	0.29	**4.08**
Ecuador	1.00	1.00	0.67	0.63	0.67	0.33	0.63	**4.92**
Egypt	1.00	0.75	1.00	0.50	0.67	0.33	0.21	**3.79**
El Salvador	0.33	0.88	1.00	0.88	0.00	0.67	0.18	**4.60**
France	0.33	0.75	1.00	0.13	0.33	0.67	0.03	**3.23**
Greece	0.67	1.00	1.00	0.50	0.00	0.67	0.16	**3.99**
Guatemala	1.00	1.00	1.00	0.75	1.00	0.67	0.26	**5.68**
Honduras	0.67	1.00	1.00	0.63	0.67	0.33	0.61	**4.90**
Indonesia	0.33	0.88	0.67	0.50	0.67	0.33	0.53	**3.90**
Italy	0.67	0.86	1.00	0.00	0.67	0.67	0.18	**4.04**
Jordan	0.67	0.75	0.67	0.50	0.00	0.33	0.61	**3.52**
Kuwait	0.67	0.88	0.67	0.13	0.67	0.67	0.21	**3.88**
Lebanon	1.00	0.75	0.67	0.63	1.00	0.33	0.47	**4.85**
Luxembourg	0.33	0.71	0.67	0.50	1.00	0.00	0.34	**3.56**
Malta	0.00	0.63	0.33	0.38	0.67	0.33	0.11	**2.44**
Mexico	0.33	0.88	1.00	0.50	0.67	0.33	1.00	**4.71**
Monaco	0.33	0.71	0.33	0.25	0.33	0.67	0.11	**2.74**
Morocco	1.00	1.00	0.67	0.50	0.67	0.67	0.21	**4.71**
Mozambique	0.67	0.75	1.00	0.50	0.67	0.67	0.24	**4.49**
Netherlands	0.33	0.63	0.67	0.13	0.67	0.33	0.32	**3.07**
Netherlands Antilles	0.67	0.88	0.33	0.25	0.33	0.00	0.39	**2.85**
Panama	1.00	1.00	1.00	0.25	1.00	0.67	0.92	**5.84**
Paraguay	1.00	1.00	1.00	0.63	0.67	0.67	0.95	**5.91**

TABLE IIb
(CONTINUED)

	Professionals versus laymen	Written versus oral elements	Legal justification	Statutory regulation of evidence	Control of superior review	Engagement formalities	Independent procedural actions	**Formalism index**
Peru	1.00	0.88	1.00	0.38	1.00	0.67	0.68	**5.60**
Philippines	1.00	1.00	1.00	0.50	0.33	0.67	0.50	**5.00**
Portugal	0.67	0.75	1.00	0.50	0.67	0.00	0.34	**3.93**
Senegal	0.67	0.88	0.67	0.63	0.67	0.67	0.55	**4.72**
Spain	1.00	1.00	1.00	0.63	0.67	0.67	0.29	**5.25**
Tunisia	0.67	1.00	0.67	0.25	0.67	0.67	0.13	**4.05**
Turkey	0.00	1.00	0.67	0.63	0.00	0.00	0.24	**2.53**
Uruguay	1.00	0.50	0.67	0.13	0.67	0.33	0.76	**4.05**
Venezuela	1.00	1.00	1.00	0.50	1.00	0.67	0.84	**6.01**
Mean	**0.68**	**0.85**	**0.80**	**0.42**	**0.63**	**0.49**	**0.41**	**4.29**
German legal origin								
Austria	0.67	0.86	1.00	0.38	0.33	0.00	0.29	**3.52**
Germany	0.33	0.88	1.00	0.50	0.67	0.00	0.13	**3.51**
Japan	0.33	0.88	0.67	0.25	0.67	0.00	0.18	**2.98**
Korea	0.67	0.88	0.33	0.13	0.67	0.33	0.37	**3.37**
Switzerland	0.67	0.63	0.67	0.38	0.33	0.33	0.13	**3.13**
Taiwan	0.33	0.50	0.67	0.38	0.33	0.00	0.16	**2.37**
Mean	**0.50**	**0.77**	**0.72**	**0.33**	**0.50**	**0.11**	**0.21**	**3.15**

Scandinavian legal origin

Denmark	0.33	0.63	0.00	0.13	0.33	0.13	2.55
Finland	0.67	0.63	0.67	0.25	0.00	0.26	3.14
Iceland	0.67	0.63	1.00	0.38	0.33	0.13	4.13
Norway	0.33	0.75	0.67	0.13	0.00	0.08	2.95
Sweden	0.67	0.75	0.33	0.25	0.00	0.32	2.98
Mean	**0.53**	**0.68**	**0.53**	**0.23**	**0.13**	**0.18**	**3.15**
Mean for all countries	**0.57**	**0.71**	**0.64**	**0.36**	**0.25**	**0.30**	**3.53**
Tests of means (t-stats)							
English versus Socialist	-3.29[a]	-3.38[a]	-4.19[a]	-1.55	1.45	-3.38[a]	-5.24[a]
English versus French	-3.85[a]	-7.97[a]	-6.29[a]	-2.71[a]	-7.42[a]	-4.63[a]	-7.52[a]
English versus German	-0.59	-2.73[a]	-2.25[b]	-0.37	0.30	-0.11	-1.12
English versus Scandinavian	-0.79	-1.35	-0.75	1.22	0.02	0.33	-1.03
Socialist versus French	-0.21	-3.05[a]	-0.12	-0.74	-6.47[a]	-0.92	-1.36
Socialist versus German	3.81[a]	-0.73	0.55	0.67	-0.70	1.78[c]	3.23[a]
Socialist versus Scandinavian	3.11[a]	0.93	1.71	2.35[b]	-0.95	1.95[c]	2.81[b]
French versus German	1.40	1.24	0.78	0.96	3.58[a]	1.88[c]	2.72[a]
French versus Scandinavian	1.05	2.55[b]	2.32[b]	2.05[b]	3.09[a]	1.94[c]	2.45[b]
Germany versus Scandinavian	-0.30	1.17	0.99	1.51	-0.21	0.44	-0.02

a = significant at 1 percent level; b = significant at 5 percent level; c = significant at 10 percent level.

TABLE III
CORRELATIONS OF FORMALISM INDEX AND ITS COMPONENTS

Indices	Formalism index	Professionals versus laymen	Written versus oral elements	Legal justification	Statutory regulation of evidence	Control of superior review	Engagement formalities	Independent procedural actions
Panel A: Eviction								
Professionals versus laymen	0.6420[a]	1.0000						
Written versus oral elements	0.6614[a]	0.3073[c]	1.0000					
Legal justification	0.6840[a]	0.2598	0.3976[a]	1.0000				
Statutory regulation of evidence	0.4161[a]	0.1471	0.2390	0.2049	1.0000			
Control of superior review	0.4573[a]	0.2342	0.1009	0.2121	0.0090	1.0000		
Engagement formalities	0.5988[a]	0.2349	0.4041[a]	0.2795	0.1995	0.0037	1.0000	
Independent procedural actions	0.5353[a]	0.3952[a]	0.3858[a]	0.1799	0.1546	0.1110	0.1713	1.0000
Panel B: Check								
Professionals versus laymen	0.7625[a]	1.0000						
Written versus oral elements	0.7305[a]	0.5090[a]	1.0000					
Legal justification	0.7573[a]	0.4921[a]	0.6083[a]	1.0000				
Statutory regulation of evidence	0.4800[a]	0.1845	0.3052[c]	0.3184[b]	1.0000			
Control of superior review	0.3264[b]	0.1255	−0.0439	0.1051	0.0316	1.0000		
Engagement formalities	0.6125[a]	0.4082[a]	0.4391[a]	0.2977[c]	0.2296	−0.0296	1.0000	
Independent procedural actions	0.6517[a]	0.4836[a]	0.4538[a]	0.3406[b]	0.2869	0.0957	0.2909[c]	1.0000
Panel C: Correlations between eviction and check indices								
Formalism index	0.8257[a]							
Professionals versus laymen		0.5229[a]						
Written versus oral elements			0.7054[a]					
Legal justification				0.7502[a]				
Statutory regulation of evidence					0.9086[a]			
Control of superior review						0.7866[a]		
Engagement formalities							0.8126[a]	
Independent procedural actions								0.8575[a]

a = significant at 1 percent level; b = significant at 5 percent level; c = significant at 10 percent level.

across the two types of cases, the same subindexes are strongly positively correlated with each other. The correlation of the formalism index between check collection and eviction is 0.83. In contrast to the general pattern, the evidence and superior review subindexes are uncorrelated with the others. For most aspects of formalism, however, it appears that some countries regulate dispute resolution more heavily than others.

In Table IV we examine the determinants of formalism looking at the subindexes and the overall index. Panel A deals with eviction, and Panel B with check collection. The omitted dummy is common law (English) legal origin. Richer countries exhibit lower levels of procedural formalism than poorer ones. The data for most subindexes and the overall index also show that dispute resolution in socialist and French civil law countries is more formalized than in common law countries, even holding per capita income constant. The point estimates in the regressions are consistent with the means in Table II, yielding roughly the same order of legal origins, and in most cases the coefficients are statistically significant. Dispute resolution in German and Scandinavian origin countries also appears to be more formalized than in common law countries, although the results for subindexes are generally statistically insignificant. The incremental R^2 in explaining the formalism index from the legal origin dummies is 40 percent: nearly half of the residual variation in formalism (holding per capita income constant) is explained by the legal tradition. These results are robust to inclusion of other controls such as latitude, average years of schooling, and ethno-linguistic and religious fractionalization.[7]

These results provide striking support of the comparative law hypothesis that there are systematic differences in legal procedure across legal families. Specifically, civil law countries have more formal dispute resolution than do common law countries.

V. Determinants of the Quality of Courts

In this section we evaluate the alternative theories of the determinants of the quality of courts. Table V presents the raw

---

7. We also consider the hypothesis that the influence of Catholicism, with its protection of creditors, shapes judicial formalism. Although the percentage of a country's population that is Catholic is a statistically significant determinant of formalism, this variable becomes insignificant in a horse race with legal origin, which remains important.

TABLE IV
INDICES REGRESSIONS

Ordinary least squares regressions of the cross section of countries. The dependent variables are the indices of formalism and their component. Robust standard errors are in parentheses. All variables are described in Table I, and the data can be found at http:// iicg.som.yale.edu/.

		Independent variables:					
Dependent variables:	Log GNP per capita	Socialist legal origin	French legal origin	German legal origin	Scandinavian legal origin	Constant	N [R²]
Panel A: Eviction of a tenant							
Formalism index	−0.1254[b]	0.7437[a]	1.3681[a]	0.7842[a]	0.5729[b]	4.0386[a]	109
	(0.0489)	(0.1791)	(0.1712)	(0.2257)	(0.2677)	(0.3789)	[0.44]
Professionals versus laymen	−0.0115	0.1843[a]	0.2410[a]	0.1556[c]	0.1482[c]	0.5697[a]	109
	(0.0180)	(0.0387)	(0.0562)	(0.0744)	(0.0851)	(0.1469)	[0.20]
Written versus oral elements	−0.0047	0.0435	0.1887[a]	0.1714[b]	0.0092	0.6644[a]	109
	(0.0102)	(0.0395)	(0.0342)	(0.0774)	(0.0790)	(0.0865)	[0.26]
Legal justification	0.0057	0.2710[a]	0.3092[a]	0.2991[b]	0.1306	0.4769[a]	109
	(0.0216)	(0.0902)	(0.0602)	(0.1273)	(0.1203)	(0.1776)	[0.22]
Statutory regulation of evidence	−0.0435[a]	0.0274	0.1171[a]	0.0489	0.0169	0.6557[a]	109
	(0.0102)	(0.0357)	(0.0333)	(0.0660)	(0.0524)	(0.0808)	[0.26]
Control of superior review	−0.0276	0.2768[a]	0.0263	0.1053	0.2585[a]	0.8914[a]	109
	(0.0171)	(0.0464)	(0.0617)	(0.0736)	(0.0931)	(0.1410)	[0.17]
Engagement formalities	−0.0218	−0.1239[b]	0.3514[a]	−0.0242	0.0049	0.3520[a]	109
	(0.0141)	(0.0571)	(0.0497)	(0.0772)	(0.0876)	(0.1190)	[0.46]
Independent procedural actions	−0.0221[b]	0.0647	0.1343[a]	0.0281	0.0045	0.4285[a]	109
	(0.0107)	(0.0424)	(0.0398)	(0.0520)	(0.0640)	(0.0909)	[0.17]

Panel B: Check collection

Formalism index	−0.2072[a]	1.0579[a]	1.5422[a]	0.7622[a]	0.8339[a]	4.4465[a]
	(0.0501)	(0.1915)	(0.1922)	(0.2464)	(0.2977)	(0.4042)
						109
Professionals versus	−0.0420[b]	0.2154[a]	0.2568[a]	0.1473	0.1939[b]	0.7712[a]
laymen	(0.0185)	(0.0462)	(0.0656)	(0.0899)	(0.0952)	(0.1555)
						109 [0.21]
Written versus oral	−0.0162	0.1386[a]	0.2751[a]	0.2207[a]	0.1330[a]	0.7090[a]
elements	(0.0099)	(0.0373)	(0.0343)	(0.0726)	(0.0467)	(0.0767)
						109 [0.42]
Legal justification	−0.0328[c]	0.3533[a]	0.3809[a]	0.3609[a]	0.1824	0.6884[a]
	(0.0193)	(0.0852)	(0.0586)	(0.1191)	(0.1684)	(0.1615)
						109 [0.32]
Statutory regulation	−0.0402[a]	0.0437	0.1080[a]	0.0965	0.0009	0.6376[a]
of evidence	(0.0115)	(0.0398)	(0.0372)	(0.0656)	(0.0557)	(0.0915)
						109 [0.20]
Control of superior	−0.0131	0.2687[a]	−0.0486	−0.1589[c]	0.2119[b]	0.7893[a]
review	(0.0169)	(0.0456)	(0.0615)	(0.0864)	(0.0940)	(0.1357)
						109 [0.21]
Engagement	−0.0262[c]	−0.0866[c]	0.3580[a]	0.0235	0.0540	0.3485[a]
formalities	(0.0138)	(0.0446)	(0.0482)	(0.0745)	(0.0852)	(0.1175)
						109 [0.47]
Independent	−0.0366[a]	0.1247[b]	0.2120[a]	0.0723[c]	0.0576	0.5025[a]
procedural actions	(0.0120)	(0.0478)	(0.0453)	(0.0429)	(0.0495)	(0.1039)
						109 [0.26]

a = significant at 1 percent level; b = significant at 5 percent level; c = significant at 10 percent level.

TABLE V
DURATION IN PRACTICE

This table classifies countries by legal origin and shows the duration in practice for both eviction and check collection. All variables are described in Table I, and the data can be found at http://iicg.som.yale.edu/.

By legal origin	Eviction of a tenant				Check collection			
	Duration until completion of service of process	Duration of trial	Duration of enforcement	Total duration	Duration until completion of service of process	Duration of trial	Duration of enforcement	Total duration
English legal origin								
Anguilla	1	60	30	91	1	30	7	38
Australia	3	35	6	44	25	160	135	320
Bahrain	41	120	224	385	54	114	200	368
Bangladesh	30	180	180	390	30	180	60	270
Barbados	4	67	21	92	2	49	60	111
Belize	30	15	14	59	30	15	15	60
Bermuda	4	25	21	50	4	100	21	125
Botswana	14	42	7	63	14	42	21	77
BVI	2	42	14	58	42	21	120	183
Canada	5	21	17	43	21	250	150	421
Cayman	30	136	14	180	30	60	30	120
Cyprus	60	120	180	360	60	120	180	360
Ghana	20	140	90	250	20	52	18	90
Gibraltar	160	50	14	224	160	50	14	224
Grenada	15	90	75	180	8	90	30	128
Hong Kong	7	35	150	192	7	40	14	61
India	142	24	46	212	7	53	46	106

Ireland	11	60	50	121	11	60	60	130
Israel	3	272	135	410	60	120	135	315
Jamaica	45	46	14	105	45	87	70	202
Kenya	12	122	121	255	12	122	121	255
Malawi	3	30	2	35	3	90	15	108
Malaysia	60	90	120	270	15	15	60	90
Namibia	11	25	83	118	11	25	83	118
New Zealand	10	40	30	80	10	30	20	60
Nigeria	32	126	208	366	81	100	60	241
Pakistan	60	245	60	365	60	185	120	365
Singapore	9	40	11	60	11	18	19	47
South Africa	10	189	10	209	10	60	14	84
Sri Lanka	90	440	200	730	60	200	180	440
St. Vincent	3	302	30	335	3	22	10	35
Swaziland	5	28	7	40	5	28	7	40
Tanzania	7	180	30	217	7	90	30	127
Thailand	30	510	90	630	30	90	90	210
Trinidad and Tobago	54	103	35	192	51	101	42	194
Turks and Caicos	14	100	60	174	14	30	30	74
UAE	14	180	90	285	14	365	180	559
Uganda	1	7	21	29	14	40	45	99
United Kingdom	14	73	28	115	14	73	14	101
USA	6	33	10	49	23	17	14	54
Zambia	14	90	7	111	14	120	54	188
Zimbabwe	8	180	9	197	8	180	9	197
Mean	**26**	**112**	**61**	**199**	**26**	**88**	**62**	**176**

TABLE V
(CONTINUED)

By legal origin	Eviction of a tenant				Check collection			
	Duration until completion of service of process	Duration of trial	Duration of enforcement	Total duration	Duration until completion of service of process	Duration of trial	Duration of enforcement	Total duration
Socialist legal origin								
Bulgaria	60	450	150	660	10	250	150	410
China	15	105	60	180	15	120	45	180
Croatia	60	180	90	330	60	180	90	330
Czech Republic	60	90	180	330	30	60	180	270
Estonia	59	136	110	305	59	136	110	305
Georgia	30	60	90	180	30	60	90	180
Hungary	90	185	90	365	90	185	90	365
Kazakhstan	10	50	60	120	10	50	60	120
Latvia	27	41	11	79	28	41	120	189
Lithuania	30	90	30	150	30	60	60	150
Poland	90	720	270	1080	90	730	180	1000
Romania	30	140	103	273	30	105	90	225
Russia	10	90	30	130	10	90	60	160
Slovenia	133	510	360	1003	133	510	360	1003
Ukraine	14	90	120	224	14	90	120	224
Vietnam	35	55	60	150	35	35	50	120
Mean	**47**	**187**	**113**	**347**	**42**	**169**	**116**	**327**

French legal origin

Argentina	60	300	80	440	20	200	80	300
Belgium	3	60	57	120	0	20	100	120
Bolivia	14	60	20	94	14	360	90	464
Brazil	30	60	30	120	30	90	60	180
Chile	15	200	25	240	15	140	45	200
Colombia	139	279	82	500	165	216	146	527
Costa Rica	20	90	30	140	10	180	180	370
Cote D'Ivoire	8	120	2	130	8	82	60	150
Dominican Republic	30	90	90	210	35	90	90	215
Ecuador	38	40	30	108	38	235	60	333
Egypt	7	180	45	232	7	150	45	202
El Salvador	45	60	45	150	25	15	20	60
France	16	75	135	226	16	75	90	181
Greece	32	35	180	247	180	45	90	315
Guatemala	10	180	90	280	10	120	90	220
Honduras	15	30	30	75	30	90	105	225
Indonesia	30	165	30	225	30	165	30	225
Italy	0	450	180	630	0	415	230	645
Jordan	7	100	30	137	7	100	40	147
Kuwait	3	65	25	93	7	240	110	357
Lebanon	1	912	60	973	1	540	180	721
Luxembourg	20	120	240	380	15	45	150	210
Malta	30	610	90	730	30	365	150	545
Mexico	20	60	100	180	33	99	151	283
Monaco	17	86	16	119	24	26	16	66
Morocco	15	365	365	745	15	135	42	192
Mozambique	30	450	60	540	30	300	210	540

TABLE V
(CONTINUED)

By legal origin	Eviction of a tenant				Check collection			
	Duration until completion of service of process	Duration of trial	Duration of enforcement	Total duration	Duration until completion of service of process	Duration of trial	Duration of enforcement	Total duration
Netherlands	17	7	28	52	17	7	15	39
Netherlands Antilles	15	70	20	105	20	36	37	93
Panama	36	50	48	134	76	86	35	197
Paraguay	12	50	140	202	25	32	165	222
Peru	41	135	70	246	81	135	165	441
Philippines	42	97	25	164	42	97	25	164
Portugal	20	280	30	330	20	280	120	420
Senegal	5	60	90	155	5	150	180	335
Spain	60	55	68	183	49	69	29	147
Tunisia	3	28	2	33	3	1	3	7
Turkey	30	180	90	300	30	30	45	105
Uruguay	120	120	90	330	150	120	90	360
Venezuela	30	300	30	360	30	300	30	360
Mean	**27**	**167**	**72**	**266**	**34**	**147**	**90**	**272**
German legal origin								
Austria	7	360	180	547	14	270	150	434
Germany	29	191	111	331	29	61	64	154
Japan	3	350	10	363	3	47	10	60
Korea	30	180	93	303	20	40	15	75
Switzerland	16	180	70	266	59	75	90	224

Taiwan	30	120	180	330	30	60	120	210
Mean	**19**	**230**	**107**	**357**	**26**	**92**	**75**	**193**

Scandinavian legal origin

Denmark	20	180	25	225	15	40	28	83
Finland	15	70	35	120	35	145	60	240
Iceland	22	12	30	64	71	105	75	251
Norway	7	300	58	365	7	50	30	87
Sweden	6	135	19	160	6	165	19	190
Mean	**14**	**139**	**33**	**187**	**27**	**101**	**42**	**170**
Mean for all countries	**29**	**151**	**74**	**254**	**31**	**122**	**80**	**234**

Tests of means (t-stats)

English versus Socialist	−2.05[b]	−1.84[c]	−2.46[b]	−2.42[b]	−1.74[c]	−2.37[b]	−2.91[a]	−2.85[a]
English versus French	−0.16	−1.66	−0.77	−1.64	−0.93	−2.66[a]	−2.16[b]	−2.94[a]
English versus German	0.47	−2.49[b]	−1.65	−2.36[b]	0.03	−0.13	−0.52	−0.30
English versus Scandinavian	0.76	−0.52	0.95	0.17	−0.05	−0.39	0.76	0.10
Socialist versus French	2.23[b]	0.37	1.80[c]	1.14	0.71	0.51	1.33	0.91

TABLE V
(CONTINUED)

By legal origin	Eviction of a tenant				Check collection			
	Duration until completion of service of process	Duration of trial	Duration of enforcement	Total duration	Duration until completion of service of process	Duration of trial	Duration of enforcement	Total duration
Socialist versus German	1.90[c]	−0.51	0.15	−0.07	1.06	0.94	1.18	1.12
Socialist versus Scandinavian	2.08[c]	0.51	1.91[c]	1.14	0.88	0.78	2.05[c]	1.23
French versus German	0.68	−0.83	−1.14	−1.03	0.45	1.04	0.57	1.10
French versus Scandinavian	1.03	0.33	1.23	0.83	0.35	0.82	1.72[c]	1.33
German versus Scandinavian	0.82	1.43	2.44[b]	2.63[b]	−0.08	−0.19	1.19	0.32

a = significant at 1 percent level; b = significant at 5 percent level; c = significant at 10 percent level.

information, by country, on the estimated duration of dispute resolution, with countries arranged by legal origin. A striking finding is the extraordinary length of time it takes, on average, to pursue either claim in court. The worldwide average time for accomplishing an eviction is 254 (median of 202) calendar days, and for collecting a check 234 (median of 197) calendar days. With all the other costs, this number suggests why individuals in most countries choose not to use the formal legal system to resolve their disputes.

There is tremendous variation in the estimated duration of each procedure among countries. Eviction is estimated to take 49 days in the United States, 547 in Austria, and 660 in Bulgaria. Check collection is estimated to take 60 days in New Zealand, 527 in Colombia, and 645 in Italy. The comparison by legal origin for eviction puts common law and Scandinavian legal origin countries on top (shortest duration) and socialist and French legal origin countries at the bottom. Interestingly, and consistent with earlier work on creditor rights in Germany [La Porta et al. 1997], German legal origin countries are comparatively more efficient at check collection than at eviction. But the bottom line of Table V is the higher expected duration in civil law countries. In the words of an Indonesian legal scholar, "in connection with the nature of judicial process itself and considering the formal, punctual, and rather complicated manners and usages upheld by courts according to the Law of Procedure (especially for the laymen), it could be said that correct judgment cannot be performed in a short time" [Gandasurbrata 1980, p. 7].

Table VI presents the regression results of the determinants of judicial quality, including the log of per capita income, average years of schooling, latitude, ethnic fractionalization, and the formalism index (we consider incentives later). Panel A focuses on eviction, and Panel B on check collection. For both procedures, expected duration is not related to either the level of per capita income or the years of schooling in a statistically significant way. (The two controls—fractionalization and latitude—are also insignificant.) These results are inconsistent with the development hypothesis.

In contrast, expected duration is highly correlated with procedural formalism. Countries with higher formalism, not surprisingly, have longer expected times of using the judicial system to evict a nonpaying tenant or to collect a check. This result has important implications: it suggests that legal structure, rather

TABLE VI
OUTCOMES AND THE FORMALISM INDEX (OLS REGRESSIONS)

Ordinary least squares regressions of the cross section of countries. Robust standard errors are in parentheses. All variables are described in Table I, and the data can be found at http://iicg.som.yale.edu/.

			Independent variables:				
Dependent variables:	Log GNP per capita	Formalism index	Ethnic fractionalization	Average years of schooling	Latitude	Constant	N [R^2]
Panel A: Eviction of a tenant							
Log of duration	−0.0736	0.3012[a]	−0.2202	0.0305	0.1635	4.5593[a]	91
	(0.0937)	(0.0812)	(0.4766)	(0.0556)	(0.5432)	(0.7183)	[0.15]
Enforceability of	0.7728[a]	−0.5648[a]	1.7036[a]	0.0755	0.7046	0.1959	50
contracts	(0.1237)	(0.0863)	(0.4907)	(0.0612)	(0.5646)	(0.9043)	[0.85]
Legal system is fair	0.3501[a]	−0.5032[a]	−0.8773[c]	−0.1729[a]	0.0481	4.0479[a]	60
and impartial	(0.1094)	(0.0827)	(0.5192)	(0.0514)	(0.6593)	(0.9578)	[0.49]
Legal system is	0.5087[a]	−0.4637[a]	−0.9113[c]	−0.1938[a]	0.2377	2.6552[a]	60
honest or uncorrupt	(0.1050)	(0.0703)	(0.4679)	(0.0491)	(0.5956)	(0.8661)	[0.54]
Legal system is	−0.0344	−0.1374[b]	−0.7111[b]	−0.0953[b]	0.3681	4.6225[a]	60
affordable	(0.0918)	(0.0663)	(0.3528)	(0.0377)	(0.4174)	(0.6865)	[0.26]
Legal system is	0.3379[a]	−0.2847[a]	−0.6666	−0.1621[a]	0.3352	2.7261[a]	60
consistent	(0.1060)	(0.0774)	(0.4376)	(0.0466)	(0.5306)	(0.8494)	[0.41]
Confidence in legal	0.3250[a]	−0.1289[c]	−0.4663	−0.0781[c]	−0.7303	2.6542[a]	60
system	(0.0999)	(0.0758)	(0.4223)	(0.0411)	(0.4862)	(0.8153)	[0.29]
Corruption	1.5238[a]	−0.6393[a]	−0.2640	−0.0998	0.5314	−4.5186[a]	76
	(0.1365)	(0.1189)	(0.5182)	(0.0632)	(0.7226)	(0.9537)	[0.87]
Law and order	0.9416[a]	−0.3594[c]	−0.0867	−0.1632	4.4505[a]	0.1644	82
	(0.2245)	(0.2107)	(0.7624)	(0.1048)	(1.2861)	(1.9529)	[0.57]

Panel B: Check collection

Log of duration	−0.0377	0.3038[a]	0.7677	0.0693	0.0866	3.6403[a]	91
	(0.0826)	(0.0598)	(0.4969)	(0.0599)	(0.4612)	(0.6473)	[0.20]
Enforceability of	0.6013[a]	−0.5041[a]	1.6713[a]	0.1304[b]	0.8437	0.8848	50
contracts	(0.1310)	(0.0684)	(0.4586)	(0.0618)	(0.5685)	(0.8835)	[0.86]
Legal system is fair	0.2567[b]	−0.4415[a]	−1.0089[b]	−0.1522[a]	0.0171	4.4417[a]	60
and impartial	(0.1080)	(0.0582)	(0.4777)	(0.0524)	(0.5951)	(0.8833)	[0.52]
Legal system is	0.4258[a]	−0.3950[a]	−1.0105[b]	−0.1756[a]	0.2284	2.9389[a]	60
honest or	(0.1076)	(0.0568)	(0.4347)	(0.0522)	(0.5504)	(0.8239)	[0.55]
uncorrupt							
Legal system is	−0.0564	−0.1074[b]	−0.7225[b]	−0.0906[b]	0.3811	4.6416[a]	60
affordable	(0.0940)	(0.0497)	(0.3493)	(0.0388)	(0.4141)	(0.6595)	[0.25]
Legal system is	0.2814[b]	−0.2637[a]	−0.7670[c]	−0.1493[a]	0.2951	3.0424[a]	60
consistent	(0.1071)	(0.0539)	(0.4261)	(0.0485)	(0.4998)	(0.8246)	[0.44]
Confidence in legal	0.2943[a]	−0.1393[b]	−0.5487	−0.0707[c]	−0.7808	2.9304[a]	60
system	(0.0996)	(0.0530)	(0.4193)	(0.0411)	(0.4766)	(0.8039)	[0.31]
Corruption	1.4255[a]	−0.4528[a]	−0.2994	−0.0761	0.7321	−4.6737[a]	76
	(0.1494)	(0.1077)	(0.5308)	(0.0707)	(0.7556)	(1.0804)	[0.85]
Law and order	0.9261[a]	−0.2647	−0.0359	−0.1615	4.5262[a]	−0.1441	82
	(0.2160)	(0.1915)	(0.7375)	(0.1063)	(1.2763)	(1.7720)	[0.57]

a = significant at 1 percent level; b = significant at 5 percent level; c = significant at 10 percent level.

TABLE VII

OUTCOMES AND THE FORMALISM INDEX (INSTRUMENTAL VARIABLES REGRESSIONS)

Instrumental variables regressions of the cross section of countries using legal origin dummies as instruments for formalism. Standard errors are in parentheses. All variables are described in Table I.

			Independent variables:				
Dependent variables:	Log GNP per capita	Formalism index	Ethnic fractionalization	Average years of schooling	Latitude	Constant	N
Panel A: Eviction of a tenant							
Log of duration	-0.0766	0.2486[c]	-0.2583	0.0276	0.1544	4.8183[a]	91
	(0.0935)	(0.1299)	(0.4826)	(0.0551)	(0.5485)	(0.9317)	
Enforceability of contracts	0.7854[a]	-0.7656[a]	1.6159[a]	0.0605	0.5138	1.0620	50
	(0.1243)	(0.1586)	(0.5441)	(0.0625)	(0.6369)	(1.1726)	
Legal system is fair and impartial	0.3358[a]	-0.8331[a]	-1.3299[b]	-0.1634[a]	-0.4026	5.7299[a]	60
	(0.1101)	(0.1363)	(0.5368)	(0.0547)	(0.7484)	(0.0021)	
Legal system is honest or uncorrupt	0.4954[a]	-0.7735[a]	-1.3363[a]	-0.1849[a]	-0.1856	4.2348[a]	60
	(0.1067)	(0.1334)	(0.4782)	(0.0523)	(0.6876)	(0.9426)	
Legal system is affordable	-0.0367	-0.1920	-0.7859[b]	-0.0937[b]	0.2936	4.9006[a]	60
	(0.0899)	(0.1149)	(0.3867)	(0.0374)	(0.4227)	(0.8735)	
Legal system is consistent	0.3277[a]	-0.5218[a]	-0.9919[b]	-0.1553[a]	0.0113	3.9350[a]	60
	(0.981)	(0.1314)	(0.4379)	(0.0470)	(0.5824)	(0.9125)	
Confidence in legal system	0.3170[a]	-0.3149[b]	-0.7214	-0.0728[c]	-0.9843[c]	3.6022[a]	60
	(0.0995)	(0.1212)	(0.4395)	(0.0422)	(0.5335)	(1.0189)	
Corruption	1.5277[a]	-0.9139[a]	-0.4378	-0.1108[c]	0.3227	-3.2976[a]	76
	(0.1356)	(0.1565)	(0.5586)	(0.0648)	(0.8019)	(1.1151)	
Law and order	0.8983[a]	-0.8432[b]	-0.5352	-0.1710	4.0787[a]	2.7075	82
	(0.2321)	(0.3192)	(0.7586)	(0.1080)	(1.2767)	(2.3042)	

Panel B: Check collection

							N
Log of duration	−0.0365	0.3117[a]	0.7746	0.0697	0.0881	3.5959[a]	91
	(0.0862)	(0.1034)	(0.4707)	(0.0587)	(0.4660)	(0.7668)	
Enforceability of	0.5637[a]	−0.6438[a]	1.5940[a]	0.1339[b]	0.7335	1.7504	50
contracts	(0.1366)	(0.1353)	(0.4977)	(0.0642)	(0.6396)	(1.1637)	
Legal system is fair	0.1905[c]	−0.6955[a]	−1.4818[a]	−0.1319[b]	−0.3962	6.1443[a]	60
and impartial	(0.1100)	(0.1076)	(0.4962)	(0.0571)	(0.6871)	(0.9813)	
Legal system is	0.3610[a]	−0.6436[a]	−1.4733[a]	−0.1558[b]	−0.1761	4.6052[a]	60
honest or	(0.1137)	(0.1118)	(0.4611)	(0.0580)	(0.6635)	(1.0004)	
uncorrupt							
Legal system is	−0.0718	−0.1664[c]	−0.8323[b]	−0.0859[b]	0.2851	5.0370[a]	60
affordable	(0.0966)	(0.0950)	(0.4009)	(0.0393)	(0.4301)	(0.9297)	
Legal system is	0.2354[b]	−0.4403[a]	−1.0957[b]	−0.1352[b]	0.0077	4.2260[a]	60
consistent	(0.1027)	(0.1021)	(0.4338)	(0.0503)	(0.5451)	(0.9241)	
Confidence in legal	0.2616[b]	−0.2644[a]	−0.7816[c]	−0.0607	−0.9843[c]	3.7688[a]	60
system	(0.1067)	(0.0953)	(0.4375)	(0.0436)	(0.5010)	(1.0289)	
Corruption	1.3683[a]	−0.7426[a]	−0.5811	−0.0775	0.5495	−2.9536[b]	76
	(0.1565)	(0.1527)	(0.5755)	(0.0761)	(0.8372)	(1.3086)	
Law and order	0.8290[a]	−0.8054[b]	−0.6128	−0.1701	4.1170[a]	3.0842	82
	(0.2209)	(0.3159)	(0.8051)	(0.1097)	(1.3400)	(2.4298)	

a = significant at 1 percent level; b = significant at 5 percent level; c = significant at 10 percent level.

than the level of development, shapes this crucial dimension of judicial efficiency.

Some examples illustrate the findings of Table VI. Malawi is a low-income common law country, with per capita income of $180. It has a formalism index of 3.14 for eviction, and expected duration of only 35 days. It also has a formalism index of 2.95 for check collection, and expected duration of 108 days. By comparison, Mozambique is a low-income French legal origin country, with per capital income of $220. It has one of the highest formalism indices of 5.15 for eviction, and expected duration of 540 days. For check collection its formalism index is 4.49, and expected duration is 540 days. The same pattern emerges if we compare middle income countries (e.g., New Zealand versus Portugal), as well as rich countries (e.g., United Kingdom versus Austria).

The results on expected duration raise the crucial question: does procedural formalism, at the cost of longer proceedings, secure better justice? The answer suggested by Table VI is no.

Note first that countries with richer populations generally have higher quality justice as indicated by nearly all survey measures, consistent with the development hypothesis. However, our measure of human capital, the average years of schooling, often enters with the "wrong" (negative) sign and is statistically significant. The latter result is not just a consequence of education and per capita income being highly correlated; education comes in negative about half the time even without the inclusion of per capita income. Latitude is generally unimportant, but ethnic fractionalization exerts a negative, though usually insignificant, influence on judicial quality. The evidence on the development hypothesis is thus mixed: our measure of income, but not our measure of education, yields results consistent with this hypothesis.

Nearly all survey measures suggest that higher formalism is associated with inferior justice, holding other things constant. This result holds, with minor differences, for both eviction and check collection. It holds for enforceability of contracts, law and order, and corruption, but also for World Business Environment Survey measures. Higher formalism is associated with less fairness and impartiality, less honesty, less consistency, and less

confidence in the legal system.[8] Table VI contains the basic bottom line of this paper: at least for simple disputes, higher formalism is associated not only with the expected higher duration of dispute resolution, but also with lower quality justice as perceived by participants.

In Table VII we repeat the analysis of Table VI using legal origin dummies as instruments for formalism. With no exceptions, the results remain statistically significant, and confirm that formalism has adverse effects on both the expected duration of proceedings and other aspects of quality of the legal system. The exogeneity of legal origin for most countries suggests that it is unlikely to be the case that countries with a worse law and order environment *choose* heavier formalism. The instrumental variable results suggest the opposite direction of causality: countries that have inherited legal systems with heavily formalized dispute resolution end up with lower quality legal systems, at least for simple disputes.

At the same time the instrumental variable procedure cannot reject the hypothesis that the adverse effect of French civil law on the efficiency and quality of dispute resolution works through a channel other than formalism. For example, suppose that the transplantation of French legal rules is conducive to general state interventionism and bureaucratic inefficiency, as argued in La Porta et al. [1999], and that this channel undermines the performance of courts as well. In this case, we cannot be sure that formalism, as opposed to general interventionism, is the culprit. To assess this alternative, we repeat the analysis in Tables VI and VII using in place of formalism a measure of state interventionism having nothing to do with courts per se, namely the heaviness of regulation of entry by new firms from Djankov et al. [2002]. The latter paper finds that such regulation is heavier in French civil law countries than in common law countries. When we do this analysis, we find that, indeed, the regulation of entry predicts longer duration of dispute resolution, and lower quality of adjudication, in both the OLS and instrumental variable regressions. However, the explanatory power of regulation of entry is only 4 to 5 percent, compared with the explanatory power of formalism of 18 to 20 percent. Thus, while we cannot reject the

---

8. The results in Table VI hold with the French and the English legal origins, and are robust to alternative measures of heterogeneity, such as religious heterogeneity from Alesina et al. [2003].

TABLE VIII

OUTCOMES AND INCENTIVES (OLS REGRESSIONS)

Ordinary least squares regressions of the cross section of countries. The regressions also include log of GNP per capita, ethnic fractionalization, average years of schooling, latitude, and a constant term. Robust standard errors are in parentheses. All variables are described in Table I, and the data can be found at http://iicg.som.yale.edu/.

Dependent variables:	Formalism index	Index of mandatory time limits	Quota litis prohibited	Loser pays rule	N [R^2]
	Selected independent variables:				
Panel A: Eviction of a tenant					
Log of duration	0.4303[a]	−0.6335	0.3162[c]	0.0383	91
	(0.1030)	(0.3931)	(0.1768)	(0.1722)	[0.21]
Enforceability of contracts	−0.5465[a]	−0.4260	−0.0642	0.1393	50
	(0.0965)	(0.4977)	(0.2147)	(0.2278)	[0.86]
Legal system is fair and impartial	−0.4019[a]	−0.4282	0.0520	−0.2147	60
	(0.1135)	(0.3504)	(0.1550)	(0.1574)	[0.52]
Legal system is honest or uncorrupt	−0.3557[a]	−0.5440	−0.0751	−0.2704	60
	(0.1024)	(0.3527)	(0.1650)	(0.1694)	[0.58]
Legal system is affordable	−0.2077[b]	0.2588	−0.2991[c]	−0.1124	60
	(0.1019)	(0.3326)	(0.1652)	(0.1432)	[0.33]
Legal system is consistent	−0.1820[c]	−0.4575	−0.0045	−0.2557[c]	60
	(0.0951)	(0.2974)	(0.1423)	(0.1404)	[0.47]
Confidence in legal system	−0.0234	−0.4047	−0.0717	−0.4249[a]	60
	(0.0882)	(0.3114)	(0.1365)	(0.1386)	[0.43]
Corruption	−0.5351[a]	−0.4128	0.0527	−0.1617	76
	(0.1670)	(0.6082)	(0.2273)	(0.2230)	[0.87]
Law and order	−0.0543	−1.2233	1.1384[a]	0.3560	82
	(0.2562)	(0.7414)	(0.3702)	(0.3745)	[0.64]
Panel B: Check collection					
Log of duration	0.3239[a]	−0.1918	0.1040	0.1054	91
	(0.0850)	(0.3328)	(0.1930)	(0.1544)	[0.20]
Enforceability of contracts	−0.4557[a]	−0.2515	−0.0242	−0.0785	50
	(0.0967)	(0.4798)	(0.2259)	(0.2032)	[0.86]
Legal system is fair and impartial	−0.2930[a]	−0.8371[a]	0.0897	−0.3587[b]	60
	(0.0735)	(0.2968)	(0.1440)	(0.1490)	[0.61]
Legal system is honest or uncorrupt	−0.2870[a]	−0.5676	−0.0619	−0.4496[a]	60
	(0.0799)	(0.3458)	(0.1654)	(0.1666)	[0.62]
Legal system is affordable	−0.1394[c]	0.1677	−0.2870[c]	−0.1541	60
	(0.0755)	(0.3198)	(0.1649)	(0.1392)	[0.31]

TABLE VIII
(CONTINUED)

Legal system is consistent	−0.1683[b] (0.0714)	−0.5283[c] (0.2909)	−0.0081 (0.1535)	−0.3085[b] (0.1384)	60 [0.51]
Confidence in legal system	−0.0866 (0.0710)	−0.1780 (0.3231)	−0.1018 (0.1502)	−0.4514[a] (0.1277)	60 [0.43]
Corruption	−0.2762[b] (0.1243)	−0.6330 (0.4452)	0.1550 (0.2436)	−0.5330[b] (0.2175)	76 [0.86]
Law and order	0.1890 (0.2369)	−2.3986[a] (0.7659)	1.3469[a] (0.3783)	0.1304 (0.3639)	82 [0.67]

a = significant at 1 percent level; b = significant at 5 percent level; c = significant at 10 percent level.

hypothesis that the channel of influence of legal origin on the quality of dispute resolution is general interventionism, the channel we have identified in this paper, namely procedural formalism, explains much more than a generic measure of interventionism.

Finally, we consider the hypothesis that the quality of adjudication is shaped by the incentives facing the participants [Messick 1999; Buscaglia and Dakolias 1999]. In Table VIII we present the results for three frequently mentioned measures of incentives: mandatory time limits for judges, loser pays rules, and prohibition of contingency fees for attorneys. Mandatory deadlines are sometimes seen as effective mechanisms for speeding up proceedings; loser pays rules may make justice quicker and fairer because they discourage delays by defendants who are at fault; while prohibitions of contingency fees may dis-incentivize lawyers and thus delay proceedings. There is no convincing evidence, however, that these measures of incentives systematically influence either the duration of proceedings, or the subjective measures of the quality of the legal system. Moreover, despite the inclusion of the three new variables, the formalism index retains its effect and statistical significance in nearly all specifications.

This analysis concludes our presentation of the evidence on the three theories of what determines court performance. The results on the incentive theory are negative, but must be interpreted with caution, since we might not have the most appropriate measures of incentives facing the participants in a dispute. The results on the development theory are mixed: countries with richer populations have better (in some respects) courts, though this is not true for countries with more educated populations.

Finally, consistent with our analysis of regulation of dispute resolution, countries with heavier procedural formalism have both more slow and lower quality systems of dispute resolution, at least when one focuses on simple disputes.

VI. CONCLUSION

We present an analysis of legal procedures triggered by resolving two specific disputes—the eviction of a nonpaying tenant and the collection of a bounced check—in 109 countries. The data come from detailed descriptions of these procedures by Lex Mundi member law firms. For each country the analysis leads to an index of formalism—a measure of the extent to which its legal procedure differs from the hypothetical benchmark of a neighbor informally resolving a dispute between two other neighbors. We then ask whether formalism varies systematically across countries, and whether it shapes the quality of the legal system.

Consistent with the literature on comparative law, we find that judicial formalism is systematically greater in civil law countries, and especially French civil law countries, than in common law countries. Formalism is also lower in the richest countries. The expected duration of dispute resolution is often extraordinarily high, suggesting significant inefficiencies. The expected duration is higher in countries with more formalized proceedings, but is independent of the level of development. Perhaps more surprisingly, formalism is nearly universally associated with lower survey measures of the quality of the legal system. These measures of quality are also higher in countries with richer populations. We find no evidence that incentives facing the participants in litigation influence the performance of courts.

There are two broad views of this evidence. According to the first, greater formalism is efficient in some countries: it can reduce error, advance benign political goals, or protect the judicial process from subversion by powerful interests. On this view, the various regulatory steps, such as reliance on professional judges and collection of written evidence, are there to secure a fair judicial process. Put differently, while heavily formalized adjudication appears problematic on some measures, it would be even more problematic without the regulation.

According to the second view, many developing countries accepted the formalism in adjudication they now have as part of the transplantation of their legal system from their colonizers. On

this view, there is no presumption that the transplanted system is efficient. Although heavy procedural formalism has theoretically plausible reasons for its existence, the reality it brings is extreme costs and delays, unwillingness by potential participants to use courts, and ultimately injustice. At least some of the burdens of formalism may therefore be unnecessary, and could be relieved through reform, especially for simple disputes.

The evidence in this paper supports the second theory. Specifically, the evidence points to extremely long expected duration of dispute resolution, suggesting that courts are not an attractive venue for resolving disputes. Furthermore, we find no offsetting benefits of formalism, even when looking at a variety of measures of the perception of fairness and justice by the users of the legal system. Moreover, legal origin itself appears to determine judicial quality, other things equal, suggesting that formalism is unlikely to be part of an efficient design.

The evidence suggests that the systems of dispute resolution in many countries may be inefficient—at least as far as simple disputes are concerned. In particular, one cannot presume in economic analysis, especially as applied to developing countries, that property and contract are secured by courts. This conclusion has two implications. First, it may explain why alternative strategies of securing property and contract, including private dispute resolution, are so widespread in developing countries. Second, our results suggest a practical strategy of judicial reform, at least with respect to simple disputes, namely the reduction of procedural formalism.

APPENDIX 1: MAPPING BETWEEN THE "INTERNATIONAL ENCYCLOPAEDIA OF LAWS—CIVIL PROCEDURE," AND THE VARIABLES AND INDICES IN THE PAPER

This appendix compares the coverage of all the variables and indices in the paper with the table of contents of the *Encyclopaedia of Laws—Civil Procedure* (French monograph). The first column shows the different parts of the *International Encyclopaedia of Laws—Civil Procedure*. The second column gives the names of the variables in the paper that are related to the chapter in the encyclopedia. The last column indicates whether the variables in the second column belong to the Formalism Index (FI); to other determinants of judicial efficiency (Other), which are not reported in this version but are available from the authors; or to variables that are outcomes in the paper (Outcomes).

International Encyclopaedia of Laws—Civil Procedure (France)	Variables in the paper	Indices in the paper
Part I. Judicial organization		
1. The courts and their members	Variable: Professional versus nonprofessional judge	FI: Professionals versus laymen
2. The bar	Variable: Legal representation is mandatory	FI: Professionals versus laymen
3. Law officials	Variable: Service of process by judicial officer required	FI: Engagement formalities
	Variable: Notification of judgment by judicial officer required	FI: Engagement formalities
Part II: Jurisdiction		
1. Domestic jurisdiction	Variable: General jurisdiction court	FI: Professionals versus laymen
2. International jurisdiction	Not covered: Lex Mundi Project analyzed simple local disputes only	
Part III: Actions and claims		
1. Actions	Not covered: Right to sue assumed by case facts	
	Collective actions outside of scope of Lex Mundi Project, which analyzed simple local disputes only	
2. Claims and defenses	Variables: Filing and opposition	
	Variable: Complaint must be legally justified	FI: Written versus oral elements
		FI: Legal justification
3. Sanctions and procedural irregularities	Variables: Mandatory time limits	Other: Mandatory time limits

Part IV: Proceedings

1. Pretrial proceedings: Conciliation before trial	Variable: Mandatory pretrial conciliation	FI: Engagement formalities
2. Proceedings in first instance	Variables: Filing, service, opposition, final arguments, judgment, notification of judgment	FI: Written versus oral elements
	Variable: Complaint must be legally justified	FI: Legal justification
	Variable: Judgment must be legally justified	FI: Legal justification
	Variable: Judgment must be on law (not on equity)	FI: Legal justification
	Variable: Independent procedural actions for filing and service	FI: Independent procedural actions
	Variable: Independence procedural actions for trial and judgment	FI: Independent procedural actions
	Variable: Duration of filing and service	Outcomes: Duration in practice
	Variable: Duration of trial and judgment	Outcomes: Duration in practice
	Variable: Service of process by judicial officer required	FI: Engagement formalities
	Variable: Notification of judgment by judicial officer required	FI: Engagement formalities
	Variable: Defendant's economic situation is considered at judgment	Other: Defendant protection
3. Review proceedings (appeal)	Variable: Enforcement of judgment is automatically suspended until resolution of the appeal	FI: Control of superior review
	Variable: Comprehensive review in appeal	FI: Control of superior review
	Variable: Interlocutory appeals are allowed	FI: Control of superior review
Part V: Incidents	Mostly not covered: Outside standardized facts included in questionnaire	
	Variable: Interlocutory appeals are allowed	FI: Control of superior review

APPENDIX 1
(CONTINUED)

International Encyclopaedia of Laws— Civil Procedure (France)	Variables in the paper	Indices in the paper
Part VI: Legal costs and legal aid		
1. Legal costs	Variable: Legal representation is mandatory	FI: Professionals versus laymen
	Variable: Attorney fees are fixed or limited by statute, court, or administrative regulation	Other: Attorney's incentives
	Variable: Most common remuneration of litigation attorneys	Other: Attorney remuneration
	Variable: Quota litis or contingent fee agreements	Other: Quota litis
	Variable: Loser pays rule	Other: Other determinants
	Variable: Fully compensatory interests	Other: Other determinants
2. Legal aid	Variable: Mandatory legal aid available by law or by order of the court	Other: Defendant protection
Part VII: Evidence		
1. Burden of proof	Variable: Authenticity and weight of evidence defined by law	FI: Statutory regulation of evidence
	Variable: Judge has the independent legal obligation to investigate facts	Other: Defendant protection
2. Admissibility of evidence	Variable: Judge cannot introduce evidence	FI: Statutory regulation of evidence
	Variable: Judge cannot reject irrelevant evidence	FI: Statutory regulation of evidence
	Variable: Out-of-court statements are inadmissible	FI: Statutory regulation of evidence
	Variable: Only original documents and certified copies are admissible	FI: Statutory regulation of evidence
3. Administration of evidence	Variable: Mandatory prequalification of questions	FI: Statutory regulation of evidence
	Variable: Mandatory recording of evidence	FI: Statutory regulation of evidence
	Variable: Oral interrogation only by judge	FI: Statutory regulation of evidence
	Variable: Evidence	FI: Written versus oral elements

Part VIII: Particular proceedings	Not covered: Lex Mundi Project covered only eviction and check collection proceedings	
Part IX: Enforcement of judgments and preliminary seizure for security		
1. Enforcement of domestic judgments	Variable: Independent procedural actions for enforcement of judgment	FI: Independent procedural actions
	Variable: Duration of enforcement of judgment	Outcomes: Duration in practice
	Variable: Enforcement of judgment	FI: Written versus oral elements
	Variable: Defendant's economic situation is considered at enforcement of judgment	Other: Defendant protection
	Variable: Enforcement of judgment is automatically suspended until resolution of the appeal	FI: Control of superior review
	Variable: Transfer of debtor's property only through public auction	Other: Defendant protection
	Variable: Mandatory exclusion of defendant's essential survival assets	Other: Defendant protection
2. Protective measures	Variable: Attachment of debtor's property only after judgment	Other: Defendant protection
3. Recognition and enforcement of foreign judgments	Not covered: Lex Mundi Project analyzed simple local disputes only	
Part X: Arbitration	Not covered: Lex Mundi Project focused on judicial procedures only	
	Variable: Administrative procedures	Other: Other determinants

WORLD BANK
HARVARD UNIVERSITY
YALE UNIVERSITY
HARVARD UNIVERSITY

REFERENCES

Alesina, Alberto, Arnaud Devleeschauwer, William Easterly, Sergio Kurlat, and Romain Wacziarg, "Fractionalization," NBER Working Paper No. 9411, 2003.
Berkowitz, Daniel, Katharina Pistor, and Jean-Francois Richard, "Economic Development, Legality, and the Transplant Effect," *European Economic Review,* XLVII (2003), 165–195.
Berman, Harold, *Law and Revolution* (Cambridge, MA: Harvard University Press, 1983).
Bianco, Magda, Tullio Jappelli, and Marco Pagano, "Courts and Banks: Effects of Judicial Enforcement on Credit Markets," Universita di Salerno, mimeo, 2001.
Buscaglia, Edgardo, and Maria Dakolias, *Comparative International Study of Court Performance Indicators* (Washington, DC: The World Bank, Legal Department, 1999).
Coase, Ronald, "The Problem of Social Cost," *Journal of Law and Economics,* III (1960), 1–44.
Damaska, Mirjan, *The Faces of Justice and State Authority* (New Haven, CT: Yale University Press, 1986).
Dawson, John, *A History of Lay Judges* (Cambridge, MA: Harvard University Press, 1960).
Demsetz, Harold, "Towards a Theory of Property Rights," *American Economic Review,* LVII (1967), 347–359.
Djankov, Simeon, Rafael La Porta, Florencio Lopez-de-Silanes, and Andrei Shleifer, "The Regulation of Entry," *Quarterly Journal of Economics,* CXVII (2002), 1–37.
Ellickson, Robert, *Order without Law: How Neighbors Settle Disputes* (Cambridge, MA: Harvard University Press, 1991).
Galanter, Marc, "Justice in Many Rooms: Courts, Private Ordering, and Indigenous Law," *Journal of Legal Pluralism,* XIX (1981), 1–47.
Gandasurbrata, Purwoto, *Indonesia, Administration of Justice: Procedural Reforms on Court Congestion,* in *Asian Comparative Law Series, Vol. 2,* Purification Valera-Quisumbing, ed. (Asian Law Association of the Philippines and University of the Philippines, 1980).
Glaeser, Edward, Simon Johnson, and Andrei Shleifer, "Coase versus the Coasians," *Quarterly Journal of Economics,* CXVI (2001), 853–899.
Glaeser, Edward, and Andrei Shleifer, "A Reason for Quantity Regulation," *American Economic Review, Papers and Proceedings,* XCI (2001), 431–435.
Glaeser, Edward, and Andrei Shleifer, "The Rise of the Regulatory State," *Journal of Economic Literature,* XLI (2003), 401–425.
Glaeser, Edward, and Andrei Shleifer, "Legal Origins," *Quarterly Journal of Economics,* CXVII (2002), 1193–1230.
Gwartney, James, Robert Lawson, and Walter Block, *Economic Freedom of the World 1975–1995* (Vancouver, Canada: The Fraser Institute, 1996).
Hay, Jonathan, and Andrei Shleifer, "Private Enforcement of Public Laws: A Theory of Legal Reform," *American Economic Review Papers and Proceedings,* LXXXVIII (1998), 398–403.
Hay, Jonathan, Andrei Shleifer, and Robert Vishny, "Toward a Theory of Reform," *European Economic Review,* XL (1996), 559–567.
Hayek, Friedrich, *The Constitution of Liberty* (South Bend, IN: Gateway Editions Ltd., 1960).
International Country Risk Guide (East Syracuse, NY: Political Risk Services, 1996).
Johnson, Simon, John McMillan, and Christopher Woodruff, "Courts and Rela-

tional Contracts," *Journal of Law, Economics, and Organization,* XVIII (2002), 221–277.

Knack, Stephen, and Philip Keefer, "Institutions and Economic Performance: Cross-Country Tests Using Alternative Institutional Measures," *Economics and Politics,* VII (1995), 207–227.

La Porta, Rafael, Florencio Lopez-de-Silanes, Andrei Shleifer, and Robert Vishny, "Legal Determinants of External Finance," *Journal of Finance,* LII (1997), 1131–1150.

La Porta, Rafael, Florencio Lopez-de-Silanes, Andrei Shleifer, and Robert Vishny, "Law and Finance," *Journal of Political Economy,* CVI (1998), 1113–1155.

La Porta, Rafael, Florencio Lopez-de-Silanes, Andrei Shleifer, and Robert Vishny, "The Quality of Government," *Journal of Law, Economics and Organization,* XV (1999), 222–279.

Langbein, John, "The German Advantage in Civil Procedure," *University of Chicago Law Review,* LII (1985), 823–866.

Macaulay, Stewart, "Non-Contractual Relationships in Business: A Preliminary Study," *American Sociological Review,* XXVIII (1963), 55–70.

Merryman, John, *The Civil Law Tradition* (Stanford, CA: Stanford University Press, 1985).

Messick, Richard, "Judicial Reform and Economic Development: A Survey of the Issues," *World Bank Research Observer,* XIV (1999), 117–136.

Montesquieu, M. de Secondat, *The Spirit of Laws,* Special Edition (The Legal Classics Library, Birmingham, AL: The John D. Lucas Printing Company, 1984 [1748]).

North, Douglass, *Structure and Change in Economic History* (New York, NY: Norton and Company, 1981).

Schlesinger, Rudolf, Hans Baade, Mirjan Damaska, and Peter Herzog, *Comparative Law. Case-Text-Materials* (New York, NY: The Foundation Press, Inc., 1988).

Shapiro, Martin, *Courts* (Chicago, IL: The University of Chicago Press, 1981).

Smith, Adam, *An Inquiry into the Nature and Causes of the Wealth of Nations* (Chicago, IL: University of Chicago Press, 1976 [1776]).

Stigler, George, "The Theory of Economic Regulation," *Bell Journal of Economics and Management Science,* II (1971), 3–21.

Taelman, Piet, editor, *International Encyclopaedia of Laws—Civil Procedure* (The Hague, The Netherlands: Kluwer Law International, 1994).

United Nations Development Programme, *Human Development Report 1994* (New York, NY: Oxford University Press, 1994).

von Jhering, Rudolf, *Geist des Römischen Rechts auf den Verschiedenen Stufen Seiner Entwicklung* (The Spirit of Roman Law through its Several Phases of Development) (Leipzig, Germany: Breitkopf und Härtel, 1898).

Watson, Alan, *Legal Transplants: An Approach to Comparative Law* (Charlottesville, VA: University of Virginia Press, 1974).

World Bank, *World Business Environment Survey* (Washington, DC: The World Bank, 2000).

——, *World Development Indicators* (Washington, DC: The World Bank, 2001).

——, *World Business Environment Survey* (Washington, DC: Private Sector Advisory Group, The World Bank, 2002).