

INTERNATIONAL CENTRE FOR ECONOMIC RESEARCH



## **WORKING PAPER SERIES**

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**THE ECONOMIC EFFECTS OF JUDICIAL ACCOUNTABILITY  
SOME PRELIMINARY INSIGHTS**

*Working Paper No. 19 / 2005*

# **The Economic Effects of Judicial Accountability**

## **Some Preliminary Insights**

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**August 2005**

### **Abstract.**

Judicial independence is not only a necessary condition for the impartiality of judges, it can also endanger it: judges that are independent could have incentives to remain uninformed, become lazy or even corrupt. It is therefore often argued that judicial independence and judicial accountability are competing ends. In this paper, it is, however, hypothesized that they are not necessarily competing ends but can be complementary means towards achieving impartiality and, in turn, the rule of law. It is further argued that judicial accountability can increase per capita income through various channels one of which is the reduction of corruption. First tests concerning the economic effects of JA are carried out drawing on the absence of corruption within the judiciary as well as data gathered by the U.S. State Department as proxies. On the basis of 75 countries, these proxies are highly significant for explaining differences in per capita income.

**Key words:** Judicial Independence, judicial accountability, rule of law, economic growth, corruption, constitutional political economy.

**JEL classification:** H11, K40, O40, P51

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# **The Economic Effects of Judicial Accountability**

## **Some Preliminary Insights**

### **1. Introduction**

The positive effects of judicial independence have been stressed frequently: if judges are dependent on representatives of other government branches, the implementation of the rule of law was impossible and a rule of persons would result instead. An independent judiciary would hence be a necessary condition for the realization of the rule of law. It has also been shown (Feld and Voigt 2004) that a high degree of factually implemented judicial independence is conducive to economic growth.

But judges who are independent from most other decision-makers can also constitute a danger: they could render decisions only with hefty delays, render decisions that neglect much of the available evidence, render decisions that rely on irrelevant legislation, or render decisions that are patently false. Independent judges are not only a necessary condition for the rule of law, they also constitute a threat to the rule of law: if there is a rule of judges, the rule of law will not be realized. This danger was described precisely by Brutus in the Anti-Federalist Paper #11 (1788): “It is, moreover, of great importance, to examine with care the nature and extent of the judicial power, because those who are to be vested with it, are to be placed in a situation altogether unprecedented in a free country. They are to be rendered totally independent, both of the people and the legislature ... No errors they may commit can be corrected by any power above them ... nor can they be removed from office for making ever so many erroneous adjudications.” This apparent tension has led many observers to claim that a tradeoff between judicial independence and judicial accountability is necessary (see, e.g., Cappelletti 1983). Some have not stopped there. Seidman (1988, 1571), e.g., discussing the arguments that have been made with regard to the relationship between judicial independence and judicial accountability claims that “virtually all defenses of judicial independence end in contradiction.” In this paper, we try to make a case in favor of both judicial independence and judicial accountability, which implies that the imputed tradeoff between the two does not necessarily exist. We shall indeed argue that it is possible to have a judiciary that is both independent and accountable (section 2). We shall further develop a number of hypotheses concerning possible effects of judicial accountability

(JA), arguing *inter alia* that a high degree of JA will reduce corruption levels and hence improve growth prospects (section 3). In order to make the hypotheses testable, a measure of JA is needed. It will be argued that the transparency of the judiciary is one crucial aspect of accountability, others include procedural provisions either within the judiciary itself or by independent agencies (section 4). A first test confirming the positive influence of judicial accountability on per capita income is carried out (section 5). The Outlook mentions a number of possible topics for future research (section 6).

The two main contributions of this paper thus are: to show that judicial independence and judicial accountability can be complementary on a conceptual level, and that our provisional proxies for judicial accountability are highly and robustly significant for explaining differences in per capita income.

## **2. On Judicial Accountability – and its Relationship to Judicial Independence**

In this section, it is argued that JA and JI are not ends in themselves but means to attain another end, namely impartiality which is, in turn, a precondition for the rule of law.<sup>1</sup> It is further argued that they are not competing means but are indeed complementary.

If judicial independence is equated with judicial non-accountability or judicial accountability with judicial dependence, not much of a point can be made in favor of the claim that JA and JI are indeed complementary. Simple equations as these do, however, miss the central point of both concepts. If judicial independence is a means to realize the rule of law, then we want judges to be independent from any pressure that the conflicting parties or members of the other government branches could put on judges in order to influence their decisions because we want them to implement “the law” – and not the interests of other persons, as this would imply a rule of persons. Understood like this, JI not only implies the absence from any open or subtle pressure on the judges but

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<sup>1</sup> See also Ferejohn and Kramer (2002) who argue that JA and JI are instrumental to reach the goal “well-functioning judiciary”. As this term is wide open to interpretation, we prefer to say that they are both means to the end of the rule of law, which is, however, also a disputed term. There is a huge discussion whether the rule of law can be realized relying exclusively on formal procedures or whether some substantive “minimum standards” have to be satisfied. We do not intend to contribute to that discussion, yet our argument holds even if the weaker – purely formal – delineation is used.

also that judges can expect their decisions to be implemented regardless of whether they are in the (short-term) interest of other government branches upon whom implementation depends. It further implies that judges do not have to anticipate negative consequences as the result of their decisions such as (i) being expelled, (ii) being paid less, or (iii) being made less influential.

But JI is not an end in itself, it is a means towards implementing the rule of law. Of course, we do not want judges to be able to decide no matter what with regard to cases brought before them. We want them to treat the parties appearing in front of them with respect, to separate relevant from irrelevant arguments, and to decide the case within a reasonable period of time according to the letter of the law. We do not want them to let their personal preferences or their sympathy or antipathy with the parties to taint their decision. In that sense, we want judges to be accountable to the law. JI is thus a necessary, but not a sufficient condition for the realization of the rule of law. In order to make judges act upon the letter of the law, adequate incentives are needed. JA can be thought of as one important aspect of these incentives.

May be, the widespread evaluation that JA and JI are conflicting can be explained because JI is, at times, delineated quite differently from the way we have chosen to delineate it here. It has also been analyzed as the amount of discretion that judges have at their disposal vis-à-vis representatives of other government branches. Judicial discretion can be perceived of as the degree to which the judiciary can implement its preferences without being corrected by one of the other branches.

The amount of discretion that the judiciary has at its disposal is a function of the concrete institutionalization of the separation of powers. Suppose the judges think of themselves as participants of a strategic game played between them and the representatives of the other government branches. Judicial discretion then depends on (1) the number of legislative chambers that need to consent to fresh legislation; the higher their number, the more discretion will the judiciary, *c.p.*, have. It will further depend on (2) the electoral system: majority rule tends to lead to two-party-systems and it is less costly to organize parliamentary majorities in two-party-systems than in more-party-systems. (3) If the constitution needs to be changed in order for judges to get their way, the required majorities play a role (Voigt 1999 contains a more precise description of the hypotheses as well as some more hypotheses).

By making these institutional decisions, the Constitutional Convention implicitly decides upon the degree of discretion allocated to the judiciary.<sup>2</sup> This is a genuine part of checks and balances, the idea that the various branches of government control each other. Checks and balances mean that there are limits to judicial discretion in the sense that the judiciary is checked upon by the other branches. This means that current majorities are more significant for the development of the law than majorities at the time the law was originally passed.

Empirically, it will often be very difficult to keep judicial independence and judicial discretion apart. This would only be possible if an unequivocal distinction between the exigencies of the laws on the one hand and judges' preferences that deviate from these exigencies on the other could be made. Being able to pay tribute to the exigencies of the laws without being stopped of doing so by representatives of other government branches would then be a trait of judicial independence, whereas being able to impute one's own preferences on the representatives of the other government branches would be a trait of judicial discretion.<sup>3</sup> Empirically, however, the letter of the law is usually not sufficiently unequivocal not to allow for competing interpretations. At times, it will, hence, be difficult to keep the two concepts apart.

After these conceptual clarifications, a first attempt to delineate JA is in order: In Webster's Dictionary, accountability is defined as "the quality or state of being accountable, liable, or responsible." Generally, accountability implies the necessity to justify or explain one's past behavior. Giving the term an economic twist could mean that behavior deviating from a generally recognized standard is somehow sanctioned. JA can then be defined as the costs that a judge expects to incur in case her behavior and/or her decisions deviate too much from a generally recognized standard, in this case referring to the letter of the law. This definition thus implies that JA is concerned with single judges and their actions – and not with the judiciary as an entire government branch. The definition further allows for the recognition of two aspects: the behavior of a judge, i.e. a procedural aspect as well as the decision of a judge, i.e. a substantive

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<sup>2</sup> It is, however, noteworthy that the formal institutions do not fully determine the degree of judicial discretion. The degree also depends on the concrete preferences of the members of the other chambers. Tsebelis (2002) calls this last type of veto player partisan veto players

<sup>3</sup> And actively using a high degree of judicial discretion could be called judicial activism.

aspect. Concerning the behavioral aspect, one can further distinguish between behavior committed in office vs. behavior committed out of office, e.g. having accepted bribes vs. having beaten up one's husband. The definition is fuzzy concerning the threshold with regard to deviation: at times, it will be no mean feat to ascertain whether a certain behavior is "generally recognized" or not. Over the years, ever more countries have adopted so-called codes of judicial conduct that are to separate ethical from unethical judicial behavior. Whether a decision conforms to generally recognized standards is often just as difficult to ascertain. It would be naïve to assume that the judges' job primarily consists of applying general norms to specific cases.

Our preliminary definition of JA should also enable us to pick up the relationship between JA and JI again. We claim that there is no tradeoff between the two. This means that JA and judicial dependence (JD) should not be identical. The most important difference between the two concepts is that an accountable judge will have to incur extra costs if she disregards or violates the law whereas a dependent judge will have to incur extra costs although she meticulously follows the letter of the law. Additionally, JA is concerned with the behavior of single judges, whereas JD can be used to describe the situation of an entire government branch. It can now even be argued that high levels of de facto JI are a necessary condition for high degrees of JA: if a judge aims at making decisions in accordance with the letter of the law (i.e. is accountable), the absence of pressure from either the other government branches or the conflicting parties seems a crucial precondition. In other words: JA is the more encompassing concept and it might be difficult to estimate the effects of JI and JA in isolation empirically.

An entire battery of mechanisms to make judges accountable is discussed in the literature (Seidman 1988, 1572ff. as well as Ferejohn 1999 contain very brief overviews). We propose to shortly discuss them in turn, asking whether they qualify as instruments of JA according to the definition here proposed.

(1) *Impeachment*; it is concerned with the behavior of a single judge. If the impeachment process is only kicked off after the judge has broken some generally agreed upon standard, it does thus qualify as an institution of JA. But as long as the power to initiate impeachment proceedings is vested with the executive and/or the legislature, it can be misused to intimidate judges – and thus be turned into an instrument of judicial dependence.

(2) The *power* of members of other government branches *to nominate and appoint judges*; although concerned with individual judges, this institution is not concerned with past and wrongful behavior of judges that is now negatively sanctioned. This is also true for the decisions to *raise the number of judges*.<sup>4</sup> Thus, neither qualifies as an institution of JA.

(3) *The necessity to be re-elected at periodic intervals*; this is concerned with individual judges' past behavior but not necessarily with wrong decisions on legal grounds, but rather with "wrong" decisions regarding the preferences of the relevant constituency. Hence, it does not necessarily make judges more accountable to the letter of the law.

(4) *Appropriate funds to the courts*; one of our criteria to distinguish JA from JD was that JA is concerned with single judges. As long as funds are allocated to the entire judiciary and not to individual judges, the allocation of funds would thus not qualify as an aspect of JA.<sup>5</sup>

(5) *Judges decisions need to be implemented by representatives of other government branches*. This is a trait of checks and balances rather than of JA.

(6) *Judicial decisions can be reversed by constitutional amendment*. As pointed out above, this is part of the checks and balances as designed by the framers of the constitution.

(7) *Limitations on the jurisdiction of judges*; this aspect is rather concerned with their competence. True, if they overstep their competences, this could entail some costs. Yet, as long as jurisdictional limitations are passed (by the other government branches) drawing on the procedures provided for in the constitution, this would qualify as an aspect of checks and balances rather than of JD (or JA). The same can be said with regard to the *creation of additional courts*.

(8) *The population at large* is often needed in order to implement a decision. If overwhelming parts of the population do not accept the banning of crosses

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<sup>4</sup> An altogether different situation is the one where the number of judges is reduced and some judges have to leave before the end of their term.

<sup>5</sup> It can, however, be argued that there is an indirect link between adequate salaries of the judges and JA: if judges are not paid adequately, they could be more prone to accept bribes which would, in turn, mean a low degree of accountability.



out of public schools, such a decision will be difficult to implement. As in the previous argument, this can point towards a limited amount of discretion. Since popular support is not necessarily closely connected to the letter of the law, the argument is not necessarily concerned with JA.

(9) Some constitutions provide for the possibility that the population corrects court decisions qua *referendum*. Assuming that judges want their decisions to be implemented and not corrected via referendum, such a possibility thus creates incentives for the judges to take popular preferences into account in their decisions. It therefore does indeed create a kind of accountability, namely that to majority sentiment. This kind of accountability is, however, not necessarily identical to that of the letter of the law.

(10) The other branches could be allocated the competence to decide whether basic decisions of the judiciary should be implemented or not. Factually, the other branches have to make this decision subsequent to every important court decision. Normatively, the creation of such an institutional choice would constitute an institutional innovation with regard to checks and balances. It would, however, not qualify as part of JA.

(11) *Enact rules of court procedure*; these could, at least indirectly, qualify as a means of JA. If rules of court procedure serve to make the procedure according to which justice is produced more transparent, it will be more difficult for the individual judge to deviate from the letter of the law. On the other hand, it cannot be excluded that such rules, if issued by the other branches of government, can also serve as an instrument to make the judiciary subservient. In that case, they would thus be an incidence of JD.

According to our definition, very few of the measures frequently discussed as being part of JA really qualify as such if the definition of JA here proposed is applied. Until now, we have only identified one single instrument which unequivocally belongs to JA, namely impeachment.

Impeachment is, however, a very crude instrument. Often, it can only be kicked off by parliamentarians. Kicking it off is connected with high opportunity costs to them. We would expect parliamentarians to kick it off only if they expect positive returns, most likely in the way of increased chances of re-election. This means, again, that popular sentiment controls the probability of judges being impeached. The question thus is:

aren't there any other instruments to make judges work as the principals want them to? We now turn to present some of those instruments:

(1) Judicial decisions are often *collective decisions* of three or more judges. Given that this is the case, it seems less likely that the decision will not be based on the letter of the law than if a single judge has the competence to make decisions.

(2) Judicial decisions are *subject to appellate review*. If one of the parties believes that the decision of the first instance is fundamentally flawed, it can take the case to a higher court which has the competence to overturn first instance decisions. Supposedly, the judges on the higher courts are better qualified than the ones on the first court. Appellate review is, however, not available on the highest court level.

(3) If a court is obliged to *publish its decisions*, their compatibility with the valid law can be ascertained more easily than if this were not the case.

(4) The necessity that judicial decisions need to be accompanied by an *extended reasoning* is closely related to this point; this increases JA. The reasons for judicial decisions become transparent – and can be challenged either in another court, in the media, or in a “complaint agency” (to be discussed below).<sup>6</sup>

(3) Another aspect of transparency is whether court proceedings occur behind closed doors – or are *open to the public*: if the behavior of a judge is subject to public scrutiny, incentives to comply with generally recognized standards can be expected to be higher than if this is not the case.

(4) Judicial statistics also increase transparency. Whether they qualify as JA depends on their exact nature. Judicial statistics can inform the public about the number of cases filed, the number of cases resolved etc.. As long as this information refers to the judiciary as a group, it does not qualify as JA as low speed cannot be attributed to individual judges. If *individual calendars* are published, it does qualify as JA because

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<sup>6</sup> Requiring an extended proof can also be interpreted as an aspect of JI: it makes it more difficult for members of the other branches to put pressure on judges to rely on aspects being of minor or no importance for the case at hand. This observation strengthens our claim that JI and JA do not need to be conflicting.

the activities of individual judges become transparent and their behavior thus accountable.<sup>7</sup>

(5) *Codes of judicial conduct* can help to draw the line between acceptable and non-acceptable judicial behavior. As such, they are thus not part of JA. But any activities, no matter whether administered within the judiciary or somewhere else that aim at sanctioning deviations from such codes would qualify as an element of JA.

(6) „*Complaint agencies*“ can give affected parties the possibility to complain about the behavior of a judge. If they have some competence to sanction misbehaving judges and are easy to use, they can constitute an incentive for judges to behave appropriately.

(7) *Disciplinary action*; if judges do not conform to either formal law or judicial codes of conduct, they might be subject to disciplinary action. As long as disciplinary measures are not invoked out of political (i.e. non-legal) reasons, the threat of disciplinary action can indeed enhance JA.

(8) As a constraint that is often rather crude, the possibility of *charging a judge with having committed a criminal offense* must be mentioned. This can apply to both acts committed in the function of a judge but also out of court.

In this section, we have tried to define JA and to show that JA and JI are not at odds with each other but can even re-enforce each other. We have critically discussed a number of instruments frequently mentioned as ways to limit JI or to increase accountability and concluded that few of them conform to the definition of JA offered here. Eventually, a number of instruments compatible with the definition were named. Before we discuss ways to quantify – and make comparable – these aspects of JA in section 4, some theoretical notions concerning the function as well as the potential consequences of JA are discussed in section 3.

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<sup>7</sup> Following the saying “Justice delayed is justice denied”, it could be argued that the timeliness of decisions (and not just the responsible use of time) should be used as a further criterion. We refrain from doing so here because judicial decision-making does take some time. If one wanted to minimize delays until final decisions were reached, a logical first step would be to get rid off the appeals option which shows that timeliness and accountability can be partially conflicting.

### **3. Some Theory**

Two positive – as opposed to normative - approaches towards dealing with JA theoretically can be distinguished: one in which JA is assumed to be exogenously given and its (economic) consequences are analyzed and another, in which JA is the endogenous variable to be explained by other factors. The main focus of this paper is with the first approach, some arguments concerning the second will, however, be mentioned in passing.

An independent judiciary can be one means to solve the dilemma of the strong state: on the one hand, a state strong enough to protect private property rights is needed. On the other, a state that is sufficiently powerful to protect private property rights is also sufficiently powerful to attenuate or outright ignore private property rights. This is to the detriment of all the relevant actors: citizens who anticipate that their property rights might not be completely respected have fewer incentives to create wealth. The state, in turn, will receive a lower tax income and will have to pay higher interest rates as a debtor. Formal strength thus turns into factual weakness. A judiciary that can adjudicate between the states and the citizens without any interference from the state can reduce this dilemma: if it is a neutral arbiter and its decisions are systematically implemented by the other government branches, aggregate investment will rise and the economy will grow faster. The judiciary can thus be an institutional arrangement to solve the dilemma of the strong state because it enables the state to enforce private property rights but prevents the state from giving in to the temptation to attenuate property rights. The independent judiciary is, in other words, a precommitment device that can turn promises of the governing to respect private property rights into credible commitments.

The judiciary is thus interpreted as a means of government to commit itself to the promises it makes. The promises are, of course, the laws passed by the legislature, e.g. with regard to private property. But the beneficial effects of this institutional solution will only materialize if the judiciary redeems the promises of the legislature. If judges do not render any decisions at all, legislative promises are not redeemed. If judges do not follow the letter of the law, but rather their own preferences, legislative promises will not be turned into credible commitments. If judges can be bribed, it is not the latter of the law that is implemented but the will of the party paying the higher price for the decision. Independent judges who are not accountable and do not incur any cost for

such behavior, will prevent the judiciary from unfolding its potentially beneficial consequences. A low degree of JA can thus increase uncertainty with regard to the status of the promises made by the legislature. Higher levels of uncertainty are expected to induce lower aggregate investment and thus lower levels of economic growth.

If the judiciary is interpreted as a mechanism of parliament to make credible commitments, then this argument can also be made with regard to society as a whole: the judiciary can also be seen as a means of society to bind itself to legislation that has been generated following procedures spelled out in the constitution. If referenda can be used in order to supersede judicial decisions, the society deprives itself of a mechanism to solve what could, in analogy to the dilemma of the strong state, be called the dilemma of the strong society.<sup>8</sup>

In order for judicial independence to unfold its beneficial consequences, judges need incentives to render decisions according to the letter of the law. Their freedom from interference from representatives of the other government branches can be interpreted as *disincentives* in this regard: why should they work a lot, when their salary cannot be reduced anyways? Why should they bother about the facts if they enjoy judicial immunity? With regard to the judiciary, many time-honored incentive schemes do not make any sense: paying judges depending on the number of decisions rendered could help to increase the number of decisions rendered but would most likely result in a loss of their quality.

It has been pointed out (e.g. by Kirchgässner and Pommerehne 1993) that court decisions are “low cost decisions”. If a judge makes the “wrong” decision, she will not have to bear the consequences of this decision, i.e. will not experience any utility losses. This means that her incentives to responsibly collect information in order to prevent costly personal losses are low. It is then often hypothesized that in the absence of hard incentives, soft incentives like those created by moral rules, peer group pressure and prestige can become quite relevant for decision-making.

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<sup>8</sup> This dilemma is well-known in constitutional economics – but usually called differently. Constitutions have been interpreted as attempts of society to make itself less susceptible to short-term temptations, just like Ulysses who had himself bound against the mast in order not to give in to the temptations of the Syrens.

Two conclusions seem to be worth discussing as consequences of this observation: First, we might want to think about transferring low-cost into high-cost decisions, i.e. make the judges responsible for any mistakes they commit. This would amount to a radical shift in the judicial system. This is, however, not the right place to discuss possible pros and cons of such an institutional innovation<sup>9</sup>. Second, one might dig a little deeper into the nature of “soft incentives” and ask to what degree they are capable of putting considerable costs on judges – and hence make them more accountable.<sup>10</sup>

In principle, reputation can be an important soft incentive channeling the behavior of judges. Often, individuals have various groups among which they appreciate to enjoy a high reputation. With regard to judges, these groups most likely include (i) one’s fellow judges, (ii) one’s academic colleagues and (iii) the public at large. This means that ethical constraints like codes of judicial conduct can constrain judge’s behavior even if they cannot be formally enforced. This can be so if codes of conduct enable others to evaluate the conduct of a judge in a specific case. If non-compliance with the code of conduct reduces the reputation of a judge, their sheer existence can be sufficient for making the judge comply with the law. It will, however, be extremely difficult to

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<sup>9</sup> Volcansek (1996, 121) reports that Italy has a provision called “recovery liability” that enables the state to recover some of the damages that it incurred as a consequence of an offending judge.

<sup>10</sup> Another constraint concerning the creation of adequate incentives is the knowledge-problem. JA can be interpreted to have the function of making wrong decisions costly. But in order to put any costs on judges who have pronounced a “wrong” decision, mechanisms are needed to ascertain whether judges have indeed decided wrongfully. There are a number of procedural provisions that are to prevent this from occurring in the first place: many court decisions need to be taken by a group of judges – and not a single one. This is to increase the probability that irrelevant arguments are sorted out, and relevant ones play the role they should play. Also, the judiciary is organized hierarchically: if a court on a lower level decides a case based on wrong arguments, the case can be taken to the next level and be decided again. But once a case has reached the highest level, there is no more redress within the judicial hierarchy. Because judges on the highest court are not subject to review by other judges anymore, their incentives to closely follow the law are particularly problematic.

Suppose a country’s best qualified legal experts are members of the highest court. Who would then have the competence to decide that one of their dicta was wrong? Based on the assumption that substantial decisions of the highest court are more difficult to evaluate than the conduct of its judges, it is proposed here that in developing an indicator that is to make JA comparable across countries to focus on institutions which monitor the conduct of judges rather than their substantial decisions if the highest level of the judicial hierarchy is concerned.

compare the relevance of reputation across countries as much of its constraining force does not depend on formalized codes of conduct but also on informal ethical codes that are difficult to assess empirically.

Ferejohn (1999, see also Ferejohn and Kramer 2002) has argued that many judges are interested in the reputation of the judiciary as a branch because the other branches will be more likely to reduce JI if the judiciary does not enjoy a high reputation. This means that individual judges who do not live up to judicial standards can inflict costs on the branch as a whole. Judicial reputation is thus also a public good. This observation is potentially very important for predicting the effects of institutions of JA that are run by members of the judiciary (and possibly for inducing the creation of adequate institutions that are to safeguard JA). In order to safeguard – or even increase – the reputation of the judiciary, its members have incentives to use (and possibly even create) mechanisms which make all their members comply with judicial standards because this will reduce the likelihood of some of them inflicting costs on all of them. Put differently: because members of the judiciary prefer to be held accountable to their peers rather than be made dependent on the other branches, institutions of JA that are administered and enforced by the judiciary have a good chance of turning out to be effective.<sup>11</sup>

Let us now turn to generate some testable hypotheses concerning the effects of JA. It has been stated that both JI and JA are necessary to reduce uncertainty of private citizens with regard to state action. If judges are not only independent but also accountable, private citizens will, *c.p.*, resort more often to state-administered adjudication. The decisions will most likely be published enabling others to take them

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<sup>11</sup> On the other hand, the creation and enforcement of judicial self-control mechanisms is still a public good: once created, all judges benefit from it. If creation and implementation is costly, every judge would hope to enjoy the fruits of the good without having to devote resources to its creation. Stressing the positive consequences of judicial self-control and assuming that these consequences were sufficient to believe in their creation would, of course, be committing the functionalist fallacy.

The attempt to make judges judges of other judges contains some dangers: this competence could be misused to get rid of unpopular colleagues; the anticipation of this possibility creates incentives to create informal networks within the judiciary that do not necessarily improve impartiality. The possibility that judges aim to be popular with their colleagues instead of implementing the law cannot be excluded either. On the other hand, informal norms to protect colleagues even though they are, e.g., clearly corrupt, is a real danger.

into account, which reduces uncertainty. This, in turn, is expected to lead to an increase in welfare-enhancing contracts. This should lead to higher growth rates, and, at the end of the day, to higher income. It has been shown that growth rates show little correlation over time and it can thus be argued that income, which reflects growth rates over many periods, is a more adequate variable (Hall and Jones 1999).

Following our discussion concerning the complementary relationship of JI and JA, it is further hypothesized that given a constant level of JA, high degrees of JI should lead to additional growth. We expect JI to be relatively more important with regard to public law and JA to be relatively more important with regard to private law. Although JI is in the long-term interest of the other branches of government, it can be costly to them in the short run. This will be particularly so if the government is involved as a party to a dispute. This is why the factual independence of the judiciary is hypothesized to be more important in public law cases. With regard to private law cases, potential costs to the other government branches seem, *c.p.*, lower. In those cases, accountability thus assumes relatively more importance as the conflicting parties have to trust the judges to implement the law truthfully.

Another channel through which JA is expected to affect economic growth is via corruption. This hypothesis is based on the assumption that widespread corruption is inimical to economic growth. A number of empirical studies seem to confirm this assumption (see, e.g., Mauro 1995). Higher degrees of JA imply higher degrees of transparency of the judiciary including tighter screening and monitoring. A high degree of JA means that there will be few judges who do not decide based on the letter of the law. We would thus expect a negative correlation between JA and the degree of corruption within the judiciary. But there could also be a second, more indirect effect: if, due to high degrees of JA, judges cannot misuse public office for private gain, they might display less tolerance if others try to misuse public office for private gain. If corruption becomes less profitable, overall corruption levels can be expected to be lower.



#### 4. Measuring JA

In order to test the hypotheses just developed empirically, indicators for JA are needed, which are developed in this section. Ideally, the criteria developed in section 2 (possibility of appellate review, requirement of extended hearing, court proceedings open to the public etc.) would be subjected to some measuring rod, which would allow us to compare them between countries. Unfortunately, very few of these variables are available for a cross-country analysis on a worldwide scale. There have been some regional analyses (Wallace 1998 with regard to Asian and Pacific countries, Volcansek 1996 with regard to three European countries and the U.S.), but to the best of my knowledge, no global survey has ever been done. In order to be able to estimate the effects of JA anyways, we propose to look for proxies that could help us to get a first impression of the possible relevance of JA.

In former research (Feld and Voigt 2004), the distinction between *de jure* and *de facto* JI has been crucial: whereas *de jure* JI does not have any economically or statistically relevant effect on economic growth, *de facto* JI does so in a very robust fashion. This is why we propose to develop an indicator which draws primarily on *de facto* rather than on *de jure* aspects of JA. We are, in other words, interested to ascertain the degree to which the members of the judiciary really are accountable – and not how they should be made accountable according to the letter of the law.

The Global Competitiveness Report, which has been published by the World Economic Forum annually since 1979, contains a variable that asks whether there are irregular payments in judicial decisions. It is based on an executive opinion survey in which executives are asked to evaluate the question “In your country, how commonly would you estimate that firms make undocumented extra payments or bribes connected with getting favorable judicial decisions?” on a scale between 1 (common) and 7 (never occurs). The 2002/03 edition (Cornelius et al. 2003) contains answers from 80 countries. This question seems to be an excellent proxy for the level of judicial accountability perceived by businesspeople in the respective countries. Above, we have, of course, hypothesized that judicial corruption is a result of the degree to which judicial accountability mechanisms are absent or functioning. For lack of data, we simply assume that the absence of judicial corruption is indeed a good proxy for functioning JA institutions. This indicator is labeled “*de facto* JA I” here.

An alternative way to get around the lack of an established indicator on JA is to draw on a study by Hathaway (2002) who created an index of Fair Trial which contains ten elements, namely (1) independent and impartial judiciary, (2) the right to counsel, (3) the right to present a defense, (4) the presumption of innocence, (5) the right to appeal, (6) the timeliness of court action, (7) the absence of *ex post facto* laws, (8) the right to a public trial, (9) the right that the charges are presented with prior notice and (10) the right to an interpreter. These are all procedural aspects. Procedures are usually introduced in order to reduce the arbitrariness of the authors whose behavior is subjected to them. Hence, procedures generally serve to make behavior more predictable. Given the ten elements named here are enforced, it will be more difficult for judges not to implement the letter. This is why these elements are used here as a second proxy for JA.

To generate her indicator, Hathaway (2002) relied on the Human Rights Reports issued by the U.S. State Department. These reports are verbal and thus need to be quantified. Two research assistants coded the data and intercoder reliability was 82%. The indicator is available for six years (1985, 88, 91, 94, 97 and 2000) and for up to 160 countries. Countries are coded “0” if the respective right is always enforced, “0.5” if it sometimes enforced and “1” if it is never or not enforced. The focus is restricted to civilian trials, i.e. the practices of military courts are not taken into account. Besides this restriction, the Hathaway indicator refers to all kinds of trials thus includes civil as well as penal or administrative cases.

The indicator needs to be treated with caution as the correlation within countries but across years is surprisingly low. In order to reduce the likelihood that singular events unduly influence the results, we use the average over all the years for which data are available. An additional problem with the data is its source: the country reports of the State Department are political documents, which might also serve the purpose to justify U.S. development aid to certain states etc.. Yet, it has been noted (Poe et al. 1999) that the annual reports of Amnesty International and the State Department have been steadily converging and do not display much differences concerning the evaluation of most states anymore.

Since we are specifically interested in JA and not in an amalgamation of JI and JA, we explicitly exclude Hathaway’s first component from our analysis. The average over all

remaining nine components averaged over all six points in time is labeled “*de facto* JA II” here. Compared with the survey of business people, this proxy has the advantage of being based on factual information and to be quite detailed concerning various aspects of JA. This will allow us to have a look at the influence of the single components on which this overall indicator is based.

Neither of these measures is ideal: the Competitiveness Report is a subjective measure based on the judgments of a couple of country experts. Although the State Department Reports are based on reported facts, the subjective evaluation of the staff of U.S. embassies still plays a role. Both measures are influenced by what the observers expected to see in a country. Ideally, we would thus prefer objective measures.

Table 0 contains some descriptive statistics of both JA I and JA II as well as of the nine single components that JA II is made up of.

**Table 0: Descriptive Statistics of JA I and JA II**

	Min.	Max.	Mean	Std. Deviation
JA I	2	6,9	4,81	1,33
JA II	0	0,44	0,17	0,12
Right to Counsel	0	0,75	0,324	0,187
Right to Present Defense	0	0,667	0,172	0,176
Presumption of Innocence	0	0,833	0,157	0,172
Right to Appeal	0	0,75	0,065	0,116
Timeliness	0	1	0,437	0,298
No ex post facto laws	0	0,167	0,003	0,020
Public	0	0,417	0,062	0,101
Charges Presented Prior	0	1	0,232	0,198
Right to Interpreter	0	0,25	0,01	0,05

Next, we present the correlation matrix of the two JA indicators and a number of control variables in order to provide the reader with an intuition for how the indicators fare in comparison to other indicators.

**Table 1: Correlation Matrix of de facto Judicial Accountability I and II as well as Controls**

	<i>De facto</i> Judicial Accounta- bility I	<i>De facto</i> Judicial Accounta- bility II	<i>De facto</i> Judicial Indepen- dence	Index for Press Freedom	Share of protestant population	Dummy for legal origin, common law	Dummy for mixed court system	Number of veto players	Index for total corruption
<i>De facto</i> Judicial Accountability I	1								
<i>De facto</i> Judicial Accountability II	-0.641** (73)	1							
<i>De facto</i> Judicial Independence	0.454** (58)	-0.504** (56)	1						
Index for Press Freedom	-0.581** (70)	0.774** (68)	-0.531** (58)	1					
Share of protestant population	0.541** (68)	-0.516** (66)	0.265* (56)	-0.460** (68)	1				
Dummy for legal origin, common law	0.246* (70)	0.082 (68)	-0.008 (58)	0.117 (70)	0.067 (68)	1			
Dummy for mixed court system	-0.240* (75)	0.132 (73)	-0.067 (58)	0.069 (70)	-0.147 (68)	-0.240* (70)	1		
Number of veto players	-0.018 (70)	-0.016 (68)	-0.008 (58)	-0.041 (70)	-0.109 (68)	0.216 (70)	-0.106 (70)	1	
Index for total corruption	0.873** (75)	-0.716** (73)	0.463** (58)	-0.655** (70)	0.664** (68)	0.149 (70)	-0.151 (75)	-0.078 (70)	1

Notes: “*de facto* judicial accountability I” is the answer to the question “In your country, how commonly would you estimate that firms make undocumented extra payments or bribes connected with getting favorable judicial decisions?” scaled from 1 (common) to 7 (never occurs) provided by the Global Competitiveness Report 2002/3. “*De facto* Judicial Accountability II” is the average of nine components on Fair Trials as provided by Hathaway (2002; and further explained in the text). “*De facto* Judicial Independence” as provided by Feld and Voigt (2004) and scaled between 0 (dependent) and 1 (independent). The “Index for Press Freedom” is provided by Freedom House and scaled between 0 (free) and 100 (not free). The “share of protestant population” is taken from La Porta et al. (1999) as is the dummy for legal origin. The dummy for “mixed court system” is provided by Harutyunyan and Mavcic (1999) and the “number of veto players” is the checks-variable as provided by Beck et al. (2000). Information on general corruption based on Transparency International’s (2003) Corruption Perception Index. The number in parentheses is the number of observations for the correlation. ‘\*\*\*’ and ‘\*’ show that it is significant on the 1 or 5 percent level respectively.

The correlation between JA I and JA II is highly significant but with .641 far from perfect. This might be due to the different methods used to generate the two indicators but even more so to the very different criteria underlying the two indicators. If correlations with the other indicators are high, this is generally true for both versions of JA (note that in JA I high scores indicate high degrees of JA, whereas in JA II, high scores indicate low degrees of JA).

The relationship between the two proxies for JA and JI is of particular interest. Remember that we have argued that JA and JI are complementary rather than competing. It seems worth pointing out some differences in the construction of the indicators: both JA proxies are generated based on the behavior of judges throughout the entire court system, whereas the JI indicator is generated analyzing the observed independence of only the highest level of judges in a country.

Whether the courts have the competence of judicial review is one important aspect of JI. Suppose courts have the power to check on the legality of administrative behavior which should lead to an accountable administration. If one further assumes that judicial accountability and administrative accountability are highly correlated, one would expect that high degrees of JI would lead to correspondingly high levels of JA.

Table 1 further shows that higher levels JA I and JA II are correlated with higher levels of *de facto* JI. A preliminary conclusion thus reads that based on our indicators, no tradeoff between JI and JA exists. The partial correlation between *de facto* JA I (II) and *de facto* JI is 0.454 (0.504) which means that it is significant on the one percent level. For the regressions to be carried out, this is potentially troubling as multicollinearity might be an issue. Most other controls display the expected correlations. It is noteworthy that the partial correlation between JA I (or the absence of judicial corruption) and the general level of corruption as reflected in the Corruption Perception Index published by Transparency International (2003) is very high (0.873). The correlation with the common law variable is a bit odd as both versions of the JA indicator have the same sign.

Based on simple correlation analysis, the hypothesis that JI is relatively more important with regard to public law, whereas JA would be relatively more important for private law cannot be confirmed. Assuming that the variable “executive constraints” which is

part of the Polity IV dataset is a proxy for the quality of public law whereas the indicators of legal formalism as produced by Djankov et al. (2003) are good proxies for the quality of private law, we simply calculated the correlation coefficients between these proxies and JA as well as JI. It turns out that the correlation between both JI as well as JA and executive constraints is highly significant whereas there is no correlation between JI or JA and legal formalism.

## 5. The Estimation Approach and Results

In order to ascertain the economic effects of JA, we propose to estimate the following equation

$$Y_i = \alpha + \beta M_i + \chi JA_i + \delta Z_i + \phi_i. \quad (1)$$

in which  $M$  is a vector containing the standard variables used to explain income (namely investment levels and the percentage of the population having been to secondary schools).  $JA$  is one version of our two indicators of judicial accountability, and  $Z$  is a vector that contains variables that might explain income and is included in order to ascertain the robustness of the influence of  $JA$  on income. Income data are from the Penn World Tables as provided by Heston et al. (2001).

One variable to be included in the  $Z$ -vector is *de facto* JI. We know from previous studies (Feld and Voigt 2004) that *de facto* JI is conducive to economic growth. It is thus a possibility that inclusion of *de facto* JI reduces the significance of  $JA$ . In section 2, the potential role of judicial discretion was discussed. In order not to confuse its relevance with either  $JA$  or JI, we simply include a proxy that controls for differences in judicial discretion among legal systems. Beck et al. (2000) have proposed a variable that counts the number of (factual) veto players. It appears to be a good proxy for judicial discretion because the higher the number of veto players that have the competence of vetoing fresh legislation, the more difficult it will be to pass fresh legislation which means that the courts enjoy more discretion.

We also control for legal origin following La Porta et al. (1999). Judges are, *c.p.*, more influential in common law countries as they are one source of law. The inclusion of the legal origin variable thus allows us to control for the imputed competence – as opposed to the accountability – of judges. Another aspect determining the competence of the judiciary is whether the legal system knows judicial review or not. If the judges have the

competence to check the work of the legislature, this makes them more powerful. To be more precise, one can control for various aspects, namely whether every single judge has the competence to review legislation (as in the U.S.), whether review is confined to *ex ante* review (as in France), whether it is confined to concrete (or abstract) cases as in the U.S. In order to control for this, we rely on a variable taken from Harutyunayn and Mavcic (1999) who distinguish between (i) the American Model, (ii) the Austrian Model, (iii) the New Commonwealth Model, (iv) the Mixed (American Continental) Model, (v) the French (Continental) Model, and (vi) systems without judicial review.

The media can play an important role in the informal monitoring of the behavior of judges. This informal monitoring presupposes, however, that the media can freely report on the judiciary. Theoretically, it cannot be excluded that the controlling function of a free press is so important that it makes judicial accountability superfluous (or at least insignificant with regard to explain differences in per capita income). We thus control for the realized degree of press freedom as reported by Freedom House. The data here used are for the year 2002.

The estimation results of the baseline specification are presented in *Table 2*. The dependent variable is GDP per capita in logarithmic form for the year 2000 as provided by Summers, Heston and Aten (2001). The two basic economic variables investment and secondary school enrollment already explain a large chunk of the cross-country variation in per capita income (*Column (1)*). The explanatory variables have the expected signs and are highly significant.

**Table 2: OLS-Regressions of GDP per Capita 2000 (in log form) on de facto Judicial Accountability I and II and Controls**

<i>Variables</i>	<i>(1)</i>	<i>(2)</i>	<i>(3)</i>	<i>(4)</i>	<i>(5)</i>	<i>(6)</i>
<i>De facto</i> Judicial Accountability I	–	0.071** (2.91)	0.071** (2.87)	0.077** (3.13)	0.099** (3.85)	0.076** (2.99)
<i>De facto</i> Judicial Accountability II	–	-0.995** (4.00)	-0.983** (3.78)	-0.620* (2.09)	-0.767** (2.98)	-0.975** (3.74)
Real Gross Domestic Investment 1990-2000 per capita	0.023** (5.24)	0.019** (5.16)	0.019** (5.09)	0.018** (4.95)	0.018** (4.87)	0.018** (4.89)
Average schooling years in the total population over age 25 in 1985	0.083** (6.28)	0.037** (2.99)	0.037** (2.95)	0.031* (2.32)	0.041** (3.32)	0.038** (2.94)
<i>De facto</i> Judicial Independence	–	–	0.021 (0.18)	–	–	–
Index for Press Freedom (0=free, 100=not free)	–	–	–	-0.004* (2.47)	–	–
Share of protestant population	–	–	–	-0.001 (1.05)	–	–
Dummy for legal origin = Common Law	–	–	–	–	-0.098 (1.53)	–
Dummy for legal origin = German Law	–	–	–	–	-0.031 (0.36)	–
Dummy for legal origin = French Law	–	–	–	–	0.068 (1.20)	–
Dummy for court system = US system	–	–	–	–	–	-0.005 (0.09)
Dummy for court system = Austrian system	–	–	–	–	–	0.069 (0.99)
Dummy for court system = French system	–	–	–	–	–	0.036 (0.26)
Number of veto players	–	–	–	–	–	-0.005 (0.41)
Constant	3.008	3.193	3.182	3.318	3.003	3.169
$\bar{R}^2$	0.620	0.765	0.762	0.781	0.779	0.756
SER	0.235	0.185	0.186	0.178	0.179	0.188
K.-S.	0.014*	>0.200	>0.200	>0.200	>0.200	>0.200
Observations	75	75	75	75	75	75

The numbers in parentheses are the absolute values of the estimated t-statistics, based on the White heteroscedasticity-consistent standard errors. ‘\*\*’, ‘\*’ or ‘(\*)’ show that the estimated parameter is significantly different from zero on the 1, 5, or 10 percent level, respectively. SER is the standard error of the regression, and K.-S. the 2-tailed P of the Kolmogorov-Smirnov-test on normality of the residuals. Missing values imputed.



The explanatory power is significantly improved if the two measures of JA are introduced into the model (*Column (2)*). The adjusted  $R^2$  increases from 62 to 76.5 percent and both measures of JA are highly significant. Adding the *de facto* JI indicator does not improve the adjusted  $R^2$  and *de facto* JI is not significant. As already alluded above, this might be due to the multicollinearity with the two measures of JA (*Column (3)*). But it might also be the case that high levels of JA presuppose high levels of *de facto* JI as hypothesized in section 2 above. If JA encompasses JI it is not astonishing that JI does not appear to be significant any more. The introduction of press freedom as a control variable (*Column (4)*) further improves the estimation result. The coefficient has the expected sign (note that lower scores mean higher levels of press freedom) and it is significant on the 5 percent level. The share of protestant Christians among the population remains insignificant for the explanation of income levels. Regarding legal origins, Scandinavian legal origin was taken as the benchmark against which the other three legal origins (common law, German law, French law) compete. None of them reaches any conventional level of significance (*Column (5)*). The same holds true for the variable court system and the number of veto players (*Column (6)*). Note that both versions of *de facto* JA remain highly significant throughout and are thus highly robust to the inclusion of control variables.<sup>12</sup>

We also controlled for a number of economic variables that have often been identified as significant in cross-country growth regressions such as inflation, openness, government consumption or population growth. The inclusion of these variables never led to any of the two JA indicators losing significance. The results are not reported here in order to save space.

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<sup>12</sup> Robustness of the JA proxies was also tested by including other variables such as the security of property rights as reported by the Wall Street Journal/Heritage Foundation Indicators or the degree of democracy based on the Polity IV data set. The JA proxies always remain highly significant (results not reported here but available from author upon request). We further tried to control for multicollinearity by adding interaction effects between JA and JI. It turned out that the JA proxies always kept their level of significance whereas JI did not become significant.

**Table 3: Correlation Matrix of different proxies for de facto Judicial Accountability**

	<i>De facto</i> Judicial Accounta- bility I	<i>De facto</i> Judicial Accounta- bility II	Right to Counsel	Right to Present Defense	Presump- tion of Innocence	Right to Appeal	Timeliness	No post facto	Public	Charges Presen- ted/Prior Notice	Right to Interpreter
<i>De facto</i> Judicial Accountability I	1										
<i>De facto</i> Judicial Accountability II	-0.641** (73)	1									
Right to Counsel	-0.490** (73)	0.821** (73)	1								
Right to Present Defense	-0.295* (73)	0.737** (73)	0.584** (73)	1							
Presumption of Innocence	-0.294* (73)	0.676** (73)	0.400** (73)	0.538** (73)	1						
Right to Appeal	-0.225 (73)	0.228 (73)	0.166 (73)	0.138* (73)	-0.076 (73)	1					
Timeliness	-0.429** (73)	0.606** (73)	0.457** (73)	0.245* (73)	0.405** (73)	-0.288* (73)	1				
No post facto	-0.137 (73)	0.166 (73)	0.163 (73)	0.215 (73)	-0.052 (73)	0.486** (73)	-0.177 (73)	1			
Public	-0.228 (73)	0.412** (73)	0.314** (73)	0.478** (73)	0.297* (73)	0.213 (73)	-0.010 (73)	-0.025 (73)	1		
Charges Presen- ted/Prior Notice	-0.305** (73)	0.523** (73)	0.390** (73)	0.227 (73)	0.359** (73)	0.134 (73)	0.261* (73)	-0.053 (73)	-0.027 (73)	1	
Right to Interpreter	-0.117 (73)	0.077 (73)	0.135 (73)	-0.177 (73)	-0.049 (73)	0.101 (73)	-0.056 (73)	-0.056 (73)	-0.004 (73)	0.265* (73)	1

JA II is made up of nine different components. It is, hence, very interesting to ask whether the results are driven by any particular individual components. Table 3 displays the partial correlation coefficients between the various components. Table 4 contains a regression in which the influence of all nine components is estimated individually. Except for one (right to an interpreter), they all have the expected sign. Three of them are significant for explaining income on the one percent level, namely (i) the right to counsel, (ii) the right to present a defense and (iii) the presumption of innocence. Three more components are significant on the five percent level, namely (i) the right of having the charges presented with prior notice, (ii) the right to a public trial and (iii) the timeliness of the trial. The absence of *ex post facto* legislation and the right to an appeal are significant on the ten percent level. These results show that the components that are hypothesized to be the core components of JA are not the most influential variables in explaining income but are significant independently (as well as jointly).

**Table 4: OLS-Regressions of GDP per Capita 2000 (in log form) on components of de facto Judicial Accountability**

<i>Variables</i>	<i>(1)</i>	<i>(2)</i>	<i>(3)</i>	<i>(4)</i>	<i>(5)</i>	<i>(6)</i>
Real Gross Domestic Investment (in % of GDP), Average in 1990-2000	0.022** (5.81)	0.023** (5.95)	0.024** (6.12)	0.024** (5.72)	0.021** (4.83)	0.022** (5.34)
Average schooling years in the total population over age 25 in 1985	0.059** (4.73)	0.071** (5.69)	0.065** (5.10)	0.071** (5.16)	0.069** (4.65)	0.061** (4.19)
Right to Counsel	-0.642** (4.86)	–	–	–	–	–
Right to Present Defense	–	-0.523** (3.96)	–	–	–	–
Presumption of Innocence	–	–	-0.458** (3.09)	–	–	–
Charges Presented/Prior Notice	–	–	-0.293* (1.97)	–	–	–
Public	–	–	–	-0.430* (2.08)	–	-0.400(*) (1.93)
No post facto	–	–	–	-0.829(*) (1.85)	–	–
Right to Appeal	–	–	–	–	-0.285(*) (1.93)	-0.248(*) (1.71)
Timeliness	–	–	–	–	-0.205* (2.18)	-0.217* (2.37)
Right to an Interpreter	–	–	–	–	0.016 (0.03)	–
Constant	3.353	3.158	3.195	3.100	3.221	3.286
$\bar{R}^2$	0.711	0.685	0.693	0.646	0.636	0.655
SER	0.205	0.214	0.211	0.227	0.230	0.224
K.-S.	>0.200	0.176	0.040*	0.046*	0.197	0.190
Observations	75	75	75	75	75	75

The numbers in parentheses are the absolute values of the estimated t-statistics, based on the White heteroscedasticity-consistent standard errors. ‘\*\*\*’, ‘\*’ or ‘(\*)’ show that the estimated parameter is significantly different from zero on the 1, 5, or 10 percent level, respectively. SER is the standard error of the regression, and K.-S. the 2-tailed P of the Kolmogorov-Smirnov-test on normality of the residuals. Missing values imputed.

## **6. Conclusion and Outlook**

In this paper, the hypothesis that judicial independence and judicial accountability are not necessarily competing ends but can be complementary means towards achieving impartiality and, in turn, the rule of law is presented. It is argued that judicial accountability can increase economic growth through various channels one of which is the reduction of corruption. This hypothesis is confirmed using the absence of corruption within the judiciary as a first, but rather crude proxy for judicial accountability. A second indicator that is also highly robust to the inclusion of additional variables further confirms its significance for income.

These results are encouraging. Yet, the two indicators used here are only very crude proxies for JA. This is why the subtitle alludes to preliminary insights only. It would seem worthwhile to create more precise indicators in future research. They should include a number of aspects, which are conjectured to be important for the degree of JA but have not been taken into account here due to limited data availability. Potentially relevant aspects include the use of individual calendars which make the behavior of judges more transparent, the use of codes of judicial conduct, the behavior of complaint agencies (known under such names as judicial conduct organizations, supreme judicial councils, superior councils of magistrate and the like), the relevance of judicial self-restraint (which can be ascertained, e.g., by the existence of a political question doctrine according to which courts refuse to answer informal questions by other government branches or even refuse to render decisions on purely political issues such as foreign policy issues), the use of contempt of court rules, which would be used to indicate the absence of JA.

In this paper, the possible consequences for institutional design that can be derived from our insights have not been explicitly dealt with. Introducing or extending judicial accountability is not costless, as resources have to be devoted to it. It is thus rational to increase JA only to the extent where expected marginal costs are still covered by expected marginal revenues. Informal institutions are an important aspect of JA. The degree to which their effectiveness can be influenced by conscious institutional design is certainly limited. Yet, we do know a bit about the conditions under which the voluntary participation in the production of a public good (“judicial reputation”) is more likely.

Finally, JA has been treated as the independent variable in our analysis. The next step would be to ask whether the degree of (*de facto*) JA is systematically determined by certain variables such as the level of democracy realized in a country, certain experiences with overly active judiciaries, whether a country belongs to the civil or the common law tradition (as common law judges tend to have more influence, the likelihood of broad accountability mechanisms seems *prima facie* higher), ethno-linguistic fractionalization, the role of the press etc. This paper is thus only a first step in a research program that promises to be exciting.

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