Explaining *de facto* judicial independence

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Abstract

Judicial Independence (JI) as factually implemented varies considerably between countries. Since *de iure* JI is an imperfect predictor of *de facto* JI, a number of variables that might determine the factual level of judicial independence is theoretically discussed and empirically tested. A distinction between factors that can be influenced in the short run and those that are the result of historical development and are exempt from short-term modification is made. Ascertaining the relative relevance of these two groups of variables promises to be policy-relevant because attempts to make judiciaries more independent within governance programs might be seriously constrained by factors beyond the control of national governments and international organizations.

Key Terms: Judicial independence, informal institutions, formal institutions

JEL classification: D 72, D 78, H 11, K 42

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1. Introduction

The notion of the division of powers within the political system can be traced back at least to Montesquieu. It is argued that each branch of the political system, executive, legislative and judiciary should be at least partially independent of the two other branches. It is of special importance to have a judicial body that can solve conflicts between executive and legislative. A major precondition for the legal system to fulfill this function is the independence of the judiciary from outside interference. Judicial independence (JI) can either be measured by looking at the formal laws that define the position of the judiciary with respect to the other pillars of the political system, which we call *de iure* JI. Alternatively, it can be measured by analyzing how JI is factually implemented, which we term *de facto* JI.

The aim of this paper is two-fold. First, we show that *de iure* JI cannot fully explain *de facto* JI. Second, we look at other variables that could explain *de facto* JI.

Recently, it has been found that *de facto* JI is conducive to economic growth (Feld and Voigt 2003). Drawing on a new set of indicators, it was also demonstrated that *de iure* JI has no significant impact on economic growth. This implies that the correlation between *de iure* and *de facto* JI is not perfect. Using data for 80 countries, the correlation coefficient between the two variables is 0.22. In other words: JI as found in the legal texts is an imperfect predictor for JI as factually implemented. Thus, additional influences appear to be at work that affect de facto JI.

It is the purpose of this paper to identify variables that determine the level of *de facto* JI. A distinction will be made between exogenous factors that cannot be modified, at least in the short- and medium-term, and factors that can be modified at will even in the short term. Examples for possibly relevant variables of an exogenous nature are the ethnic diversity of a society, its religious traditions, and its legal history. Examples for factors that are – at least in principle – subject to deliberate modification are the number of political constraints of a political system, the question of whether it is a unitary or a federal system or what type of court system a country chooses to set up. Such an approach was chosen because it promises to shed light on the question to which degree a society has the capacity to establish a judiciary that is not only formally independent but that is indeed factually so.

Using a rigorous model reduction process in the empirical analysis, we can show that five variables appear to be of particular relevance for explaining the level of *de facto* JI. *De facto* JI is increased by *de iure* JI, confidence of the population in the legal system, per capita income, political instability, and by parliamentary systems as opposed to presidential ones.

The plan of the paper is as follows: the next section serves to develop some theoretical considerations, section three contains a description of the data, the fourth section presents our estimation approach and the results, section five is devoted to an interpretation of the results, and section six concludes.

2. Theoretical Considerations

2.1. Judicial Independence

In recent years, interest in the economic consequences of legal rules has burgeoned. Econometric studies estimating the economic effects of different legal rules were made possible by a variety of new data sets, representing various aspects of legal rules. The most prominent data set is probably the Economic Freedom Index as published on an annual basis by Gwartney *et al.* (e.g. 2001; de Haan and Sturm 2000 with an overview over the econometric studies based on these data). Interest in these issues has, however, not been restricted to the academic world. Almost all policy-oriented programs of good governance as, e.g., promoted by the World Bank, have stressed the importance of the rule of law and an independent judiciary.

Three archetypical situations in which the independent judiciary plays a crucial role can be distinguished:

(1) In cases of conflict between private parties: If they had voluntarily entered into a contract and one of the contracting parties believes that the other side hasn't lived up to the contract, impartial dispute resolution can be important. As long as both sides expect the judiciary to be impartial and hence independent from pressure emanating from either of the contract partners or any other party, they can save on transaction costs while negotiating their contract. On average, lower transaction costs will lead to more welfare-enhancing transactions taking place.

(2) In cases of conflict between government and the citizens, the citizens are in need of an organization that can adjudicate who is right (who has acted according to the law) –

the judiciary. This does not only mean to ascertain the constitutionality of newly passed legislation but also to check whether the representatives of the state have followed the procedural devices that are to safeguard the rule of law.

(3) In cases of conflict between various government branches. In the absence of an impartial arbiter, conflicts between government branches are most likely to develop into simple power games. An independent judiciary can keep them within the rules laid out in the constitution.

Recently, two new indicators measuring *de iure* as well as *de facto* JI have been presented (Feld and Voigt 2003). For simplicity reasons, these indicators measure the independence of the highest court of a country, no matter whether it is a supreme court or a constitutional court. In many states, the judiciary is made up of thousands of decision-makers and, therefore, radical simplification is necessary. The focus on the highest court seems warranted because even though judges are personally independent, the ultimate control of court decisions lies with the highest courts, as they review – on the initiative of the parties involved – the lower court decisions. The independence of the highest court thus seems crucial.

Secondly, these indicators are constructed as objective as opposed to subjective indicators. A subjective indicator of JI would ask for the perception of independence amongst those being polled. For those who live under the respective rules, their perception is surely an important element determining their behavior. However, the norms of what an ideally independent judiciary would look like will most likely be different in different parts of the world. Data obtained by polls are thus not easily comparable. The two new indicators are therefore based on factual information. In principle, anybody re-estimating JI in the countries covered should end up with exactly the same data.

The indicator measuring *de iure* JI contains twelve variables, the indicator measuring *de facto* JI eight. The *de iure* indicator includes variables such as the modus of nominating or appointing highest judges, their term lengths, the possibility of re-appointment, the procedure of removing them from office, their pay and possible measures against reduction of their income, the accessibility of the court, the question of whether there is a general rule allocating cases to specific judges, and publication requirements concerning the decisions of the court. The *de facto* indicator includes variables such as the effective average term lengths, the number of times judges have been removed from office since 1960, the question of whether their income has remained at least constant in

real terms since 1960, the size of the budget of the court, and the number of cases in which the relevant articles of the constitution were changed as well as the number of times in which other government branches remained inactive when their action was necessary in order to implement a court ruling.

All variables can take on values between 0 and 1. The sum of the variables is then divided by the number of variables for which information is available. One thus ends up with two variables (*de iure* and *de facto* JI) that can lie between 0 and 1. By now, data are available for about 80 countries (aggregate data for both the *de iure* and the *de facto* indicator can be found in the appendix).

Feld and Voigt (2003) find that while *de iure* JI does not have an impact on economic growth, *de facto* JI positively influences real GDP per capita growth in a sample of 56 countries. The impact of *de facto* JI on economic growth is robust to outliers, to the inclusion of several additional economic, legal and political control variables and to the construction of the index. The authors thus conclude that judicial independence matters for economic growth.

In this paper, we are interested in explaining the observed levels of *de facto* JI. On an abstract level, it is easy to think up reasons for the non-congruence between *de iure* and *de facto* JI. Members of constitutional conventions as well as legislatures have incentives to present to their populations modern, state-of-the-art constitutions that make the separation of powers concrete by, inter alia, providing for an independent judiciary. They might also want to please potential foreign investors as well as international donor agencies and development aid agencies. An additional factor in many less developed states could also be their Western consultants who recommend an independent judiciary for plausible reasons, some of which were mentioned above.

Concerning the *de facto* level, implementation of court rulings can at times be costly for governments. Court decisions might force them to change their policies in ways they would prefer to avoid. It can thus be in their (short-term) interest not to follow decisions or to use other means to make the court decide in ways favorable to them. Hence, we are interested in identifying the factors that can make politicians respect the level of judicial independence formally granted in the constitution and other laws if they are tempted time and again to renege upon it. It is easy to reframe the question in economic terminology: what factors can make it so costly for politicians to renege upon JI that the expected net utility will turn out to be negative? As already mentioned in the

introduction, two possible groups of factors will be dealt with here, one group consisting of factors that can be modified and set at will, and another group of factors largely beyond the control of politicians. We first deal with a number of potentially relevant factors for policy.

A government will refrain from reneging upon judicial independence if this threatens to be costly. Broad opposition can be costly to the government; yet, the production of opposition is costly itself. Opposition can take on many forms, such as to be criticized in parliament, in the press, by mass demonstrations, or disobedience that can even end with the overthrow of a government. It can thus vary in its costliness to government. Opposition is a public good and the free rider problem is therefore relevant. If informal institutions are to help in factually enforcing formally granted judicial independence, they must enable a sufficiently large number of citizens to make voluntary contributions to the production of the public good opposition. Before the problem of spontaneously producing opposition can even become an issue, the population would have to solve the problem of identifying attempts of tinkering with judicial independence in the first place. The media as watchdogs might play a substantial role here. One of the hypotheses to be developed below will indeed inquire into its role.

Intuitively, it seems much more likely that the public good "opposition" can be produced by organized groups who have already managed to solve the problem of collective action (Olson 1965), possibly for reasons entirely unrelated to making a government stay within the confines of the letter of the law. Before discussing the role of organized groups, we turn to the possible relevance of individual attitudes - and subsequent behavior – for a high degree of *de facto* JI. It is argued that some individual attitudes are more conducive to voluntarily participating in the production of the public good opposition than others. We will now try to identify some of them.

Relevant parts of the population need to be convinced that it is not fate that is responsible for their lot, but - at least to some degree - their individual actions. If that is not the case, no relevant opposition can be expected when its production is needed in order to safeguard judicial independence. The government's tinkering with judicial independence will then be interpreted as fate and the production of opposition as pointless. The next section discusses under which conditions production of the public good opposition seems likely. Notice that there is a direct link between individual attitudes and abilities to resolve the problem of collective action: In order to become active, individuals need to be convinced that their action can make a difference. Suitable

individual attitudes are thus a necessary condition for collective action and the production of opposition.

As has been mentioned, it seems plausible to suppose that it is easier for organized groups than for unorganized individuals to oppose government in case it reneges on the contents of the constitution because organized groups have already solved the problem of collective action. However, the production of opposition remains a public good and the conditions under which it can be beneficial for an organized group to participate in its provision must be specified. We would expect a country with a large number of voluntary associations – or an active civil society – to be able to produce opposition more easily and thus make government stay within the confines of written law.

We now present our hypotheses individually. We begin with the variables that can – at least in principle – be influenced by government and then turn to those that are exempt from direct government intervention.

2.2 Explanatory Variables Influenceable by Deliberate Action

The factual implementation of formal rules cannot be taken for granted. Supposedly, an intelligent institutional design can, however, improve the degree to which formal legal rules are factually implemented.

Checks and balances might be the most straightforward example: actors who control other actors have an incentive to monitor the actions of these other actors and make them remain within the constitutionally agreed upon boundaries since any transgression will reduce the competence of some other actor. Recently, it has been proposed to make the degree of checks and balances measurable by counting the number of veto players found in a political system (Henisz 2000). Beck *et al*. (2000) recently proposed a similar measure. Both measures are used alternatively here.[1]

Closely related to the number of veto players is the question of whether one is dealing with a parliamentary or a presidential system. Acemoglu and Robinson (2001) have recently argued that presidential systems experience more instability than parliamentary

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[1]   The same hypothesis can be developed from a functional point of view: the more veto players there are, the higher the probability that they will encounter conflicting interpretations of their competences and the higher the necessity of a judiciary that can adjudicate between them. Functional explanations have, however, been met with scepticism by economists and are often rather fallacies than explanations (see, e.g., Elster 1984).

ones. They argue that the executive enjoys relatively more power in presidential systems. Hence, the rich would be threatened by redistribution. We include a variable here that distinguishes between presidential and parliamentary systems based on the Database on Political Institutions (DPI) which was provided by Beck et al. (2000).

A third possible determinant, also closely related to the first one, is the question of whether one is dealing with a unitary or a federal system. The functional argument just developed with regard to the number of veto players also applies to this variable. Federal systems have a larger number of veto players than unitary ones and we would *c.p.* expect a higher degree of *de facto* JI in federal than in unitary states. Unfortunately, it is notoriously difficult to "measure" the degree of federalism of a given political system. Treisman (2000) contains a dummy variable on federalism which is based on Elazar (1995) and Riker (1964). This variable is used here.

Another formal variable that could affect *de facto* JI is the organizational structure of the court system. It is closely related to the variable "origin of the legal system" a variable that will be dealt with in the next subsection. Whereas the origin of the legal system is not subject to deliberate choice, the court system can be chosen. Among the various possibilities to proxy for the court system, we opted for looking at the chosen model of constitutional review. The judicial independence data are based on the highest court of a country, and the system of constitutional review is on an equally high level. Given that a constitutional system provides for constitutional review (which has only become the norm during the second half of the 20th century; Great Britain and the Netherlands still do not have it), three models can be distinguished: (i) the American model in which all courts have the competence to deal with constitutional matters; there is thus no specialized court, constitutional review is *a posteriori*, and the uniformity of jurisdiction is secured by the highest court of the country (in the U.S. the Supreme Court). (ii) the Austrian model as proposed by Hans Kelsen (1920) in which a specialized constitutional court deals with constitutional matters. It can entail both abstract and concrete review, as well as *a posteriori* and *a priori* review. (iii) The French model in which constitutional matters are dealt with by a special body (e.g. the

Conseil Constitutionel in France) having primarily a preventive task (Harutyunayn and Mavcic 1999).[2]

There is no clear-cut hypothesis concerning the effects of the various systems. We include this variable primarily to learn whether one of the three systems has definitive advantages over the others in factually implementing judicial independence.[3]

A free press is hypothesized to be conducive to a high degree of *de facto* JI. Strictly speaking, a free press is not part of the relevant institutional structure, but rather a consequence of a certain institutional structure. If politicians consider tinkering with the independence of the judiciary, a press that is largely free from government interference can make such attempts costly – and hence less attractive – for politicians by widely reporting them. At times, a free press can be instrumental for helping those opposed to the interference into the independence of the judiciary to overcome their collective action problems. The indicator used here is provided by Freedom House on an annual basis and takes into account aspects such as whether or not dissent is allowed, whether there is political pressure on the content of the media no matter whether state run or privately owned, whether there is economic influence on media content that would distort the quality of reporting, and whether there have been any incidents in which press freedom was violated such as murders, arrests, suspension and the like.

2.3 Explanatory Variables Non-Influenceable by Deliberate Action

An alignment of *de facto* with *de iure* JI will be more likely if it is costly for government members to break the rules regarding formal JI. Informal variables conducive to a high degree of *de facto* JI are those that help to make the production of opposition more likely. Such production will be more likely if a large part of the population shares basic values and norms but also has a similar perception regarding specific events. We hypothesize that a population split into a number of different ethnic groups and possibly also speaking different languages will have more difficulty to produce opposition. A high degree of fractionalization should thus lead to lower levels of *de facto* JI.

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2   Most, but not all, constitutional systems can be grouped into one of the three models presented. Additionally, Harutyanayn and Mavcic (1999) name a "New (British) Commonwealth Model" implemented by Mauritius, and a "Mixed (American Continental) Model" which can be found in a number of states, inter alia in Portugal, Columbia, Ecuador, Guatemala, and Peru.

A counter-argument against this hypothesis can be put forward from a functionalist perspective: If the judiciary is interpreted as having an arbitration function, the need for arbitration in fractionalized societies is higher than in homogeneous ones. Yet, if this is the case, the stakes of controlling the judiciary are high and also the incentives to change the degree of *de facto* JI.

Various indicators to measure ethnic heterogeneity and fractionalization have been proposed. The index of ethnolinguistic fractionalization (ELF) is based on data from 1960 compiled by the Department of Geodesy and Cartography of the State Geological Committee of the USSR in 1964. The decisive criterion for separating groups was linguistic origin; no economic or political variables were taken into consideration. Based on these data, the ELF was calculated by Taylor and Hudson (1972). It measures the probability that two persons from a given country selected at random do not belong to the same ethnolinguistic group. The higher the index, the more heterogeneous the country.

The ELF is not the only indicator that has been proposed to proxy for heterogeneity. Easterly and Levine (1997) have constructed a variable "Average ethnolinguistic fractionalization" based on the ELF as well as on four additional indicators. These include (1) the probability that two randomly selected individuals speak different languages (Muller 1964), (2) the probability that two randomly selected individuals do not speak the same language (Roberts 1962), (3) the percentage of the population that does not speak the official language (Gunnemark 1991), and (4) the percentage of the population that does not speak the most widely used language (ibid.). The partial correlation coefficient between the original indicator and the average indicator is high (0.92). Yet, we decided to use the average indicator as an alternative variable for heterogeneity because it is available for a larger number of countries.

Different religions can lead to different values, norms, and attitudes. Max Weber (1920/1988) famously argued that the secondary virtues propagated by Protestant sects led to a work ethic that was conducive to economic growth. Religions can propagate the importance of individual attitudes, decisions, and actions with regard to the good life. The other extreme is the case in which everything is predetermined and beyond the

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[3]   It would also be interesting to check whether the division of labor within the court system has any discernible effect on *de facto* JI.

control of the individual. Such views would be conducive to fatalism in which actions directed against the state would not even come to anybody's mind.

Putnam (1993) claims that those Italian regions with a high number of voluntary associations that have a horizontal organization structure are conducive to the production of high quality local public goods. He further argues that the Catholic Church has a vertical organization structure. La Porta et al. (1997) asked whether this result could be generalized and additionally classified Islam and the various Orthodox churches as having hierarchical structures. They find (ibid., 336f.) that holding per capita income constant, "countries with more dominant hierarchical religions have less efficient judiciaries, greater corruption, lower-quality bureaucracies, higher rates of tax evasion, lower rates of participation in civic activities and professional associations, a lower level of importance of large firms in the economy, inferior infrastructures, and higher inflation."

Another – closely related – aspect is the relationship between religion and state. It has been argued (e.g. by Berman 1983, Rosenberg and Birdzell 1986) that competing jurisdictions between state and church were one decisive factor for the West to grow rich. Inversely, caesaropapism – the unity of state and church leadership – is conjectured to be a hindrance to implementing the rule of law and an independent judiciary as a part thereof. This hypothesis is based on the conjecture that the church and the state offer different legal systems that compete for loyalty. Competition would secure that the preferences of the subjects would have to be taken into account more closely than in a setting in which an all-powerful state is the monopoly supplier. The orthodox churches represent the religions most closely connected to caesaropapism.

Religious traditions will have an influence on attitudes and behavior even in largely secularized societies. Yet, there might be other factors influencing behavior. We thus decided to construct a variable capturing what could be called "rule of law culture", a set of attitudes that we hypothesize to be conducive to the rule of law – and to a high degree of *de facto* JI. This indicator is based on three waves of the World Values Survey (1981, 1990, and 1995-97). About 1000 randomly selected people in about 50 different countries and regions were asked a multitude of questions concerning values and attitudes (see World Values Study Group 2000).

Our first indicator is based on the answers to a question asking about the confidence the respondents have in the legal system. This gives an indication of the informal support

the judiciary has in the population. Strong public support may not only help to guarantee that the codified extent of *de iure* JI is actually implemented, it may actually increase the degree of JI.[4] However, the direction of causation is not entirely clear. It might also be the case that high de facto JI increases the confidence of the population in the legal system. If that is the case, our coefficient estimates on this variable will be biased upward.

It was shown that the production of opposition is equivalent to the production of a public good. In case government threatens to undermine JI, a population's capacity to produce opposition is therefore subject to its capacity to overcome the problem of collective action. Some variables from the World Values Survey can be used as proxies for individual attitudes that are a precondition for becoming actively involved in public issues. Since they are not directly measuring what we are interested in, we construct a variable containing that part of the variance of the respective variables we are actually interested in when measuring the potential for collective action. Distilling the information of several variables into one is also advantageous in the present situation of a scarcity of degrees of freedom. We use three such variables to generate a factor "Collective Action" by using principle components analysis:

(1) Survey respondents were given a list of 15 different types of voluntary organizations (from social welfare services for elderly, handicapped or deprived people via sports organizations and women's groups to animal rights) and they could indicate (i) whether they belonged to any of these and (ii) whether they actively participated in them. Answers to both questions are of interest here: the existence of voluntary organizations and a high membership rate indicate that people in a specific society have managed to overcome the problem of collective action before.

(2) Respondents were asked whether they have complete control over their lives. Those who think that they do not have much control are less likely to believe in the possibilities of collective action.

(3) Finally, a questioned inquired whether respondents thought that their country was run by a few big interests. Again, a higher percentage of people believing

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[4]   A similar argument related to central bank independence has been made by Hayo (1998).

that this is the case will make it less likely that collective actions are undertaken, as people feel powerless.

A principle component analysis based on these three variables is run and generates a factor that explains 39% of the variance in the underlying variables. The signs of the factor loadings are as suggested above and all are above the rule-of-thumb value of 0.5. This factor is computed for every country, which makes its absolute value comparable in the cross-section analysis conducted below. A high positive value indicates that the country has a relatively good potential for solving the collective action problem.

A related variable, but kept separately, as it did not load very highly on the above factor, is based on whether people think that their country should be run by technocrats. JI can also be interpreted as technocratic governance, since judges are usually not directly accountable for their actions to the electorate. A hypothesis based on this observation would argue that in societies which accept technocratic governance more readily, JI should be higher.

Finally, the next variable is of a rather indirect type: Survey participants were asked whether, generally speaking, most people in society could be trusted. Both Banfield (1958) and Putnam (1993) have stressed the importance of trust for the possibility to co-operate voluntarily. Trust is here interpreted as the consequence of norms of reciprocity that can develop out of horizontally structured interaction situations. A high degree of trust should thus be conducive to the possibility to overcome the collective action problem.

Of late, a number of authors have argued that the legal origin of a country's commercial law has far-reaching effects. On a first level, La Porta et al. (1998) distinguish between common and civil law. Within the civil law tradition, they distinguish between the French, the German, and the Scandinavian law families. After having added socialist legal systems, all countries taken into account in La Porta et al. (1999) are grouped into one of these five traditions.[5] It can, of course, be questioned whether the origin of the commercial code of a country should have any influence on the degree of factually observable judicial independence. But La Porta et al. (1998, 1141) find that the quality of law enforcement differs across legal families. To proxy for the quality of law

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[5]   It is unclear whether the Central and Eastern European countries should be coded as „socialist" or according to the more traditional influences according to which the Czech Republic and Hungary should, e.g., be coded as belonging to the German family.

enforcement, they take variables such as "efficiency of the judicial system" as provided by Business International Corp., "rule of law", "Corruption", "risk of expropriation", and "repudiation of contracts by government" all provided by the International Country Risk Guide. Here, the Scandinavian countries are on top, with countries having a German civil-law tradition following closely behind. Common law-countries are behind these two groups but ahead of countries belonging to the French tradition.

The simple legal origin hypothesis has been attacked by Berkowitz, Pistor, and Richard (2003) who argue that the way the law was initially transplanted and received is a more important determinant than the affiliation to a particular legal family. They claim that the origin of a legal system as identified by La Porta et al. (1998, 1999) might be a good predictor for what we call *de iure* legality, but not for the factual implementation of the law. For *de facto* legality, the way the law was transformed according to the specific situation of a society, whether it was imported voluntary or enforced by a colonial power and so forth would be much more important. According to their findings, countries that have developed legal orders internally, or adapted transplanted legal orders to local conditions, and (or) had a population that was already familiar with basic legal principles of the transplanted law have more effective legality than countries that received foreign law without any similar pre-dispositions. Berkowitz et al. (2003) deal with commercial law. Their basic hypothesis does, however, coincide nicely with similar hypotheses that have been developed with regard to a society's constitutions (Voigt 1998): if it is not in accordance with the values, norms, and attitudes of a society, it is most likely not going to be enforced. For lack of an indicator that would represent the transplant effect with regard to constitutional law, we simply check whether the voluntariness/receptiveness of passing commercial law has effects on the degree of judicial independence factually observed.

Another variable that cannot be influenced *ex post* is the time that has passed since the Constitution of a country has come into force. With regard to the credibility of central banks, Blinder (2000, 1427) recently noted that "(i)n contrast to some naïve interpretations of rational expectations, in which credibility can be created or destroyed abruptly by, say, announcing or legislating an institutional change, our respondents believe that a consistent track record matters most for credibility." To assess the claim that the past matters for how JI is evaluated by citizens and other potential investors, we

include the date a constitution came into force. A government – or more broadly: a regime – will not be able to build up a reputation as law-abiding or JI-respecting overnight.[6]

The stability of a political system is closely related with the time the respective constitution has been in place. A formal political system can be radically changed in a day. Implementation of radical change will, however, often take years. Whether a formally highly independent judiciary will in fact turn out to become independent will only show after a number of years. Our *de facto* indicator does take this into account. One can thus assume that political stability should be conducive to *de facto* JI. To measure political stability we have used the riots indicator provided by Easterly and Levine (1997).[7]

Finally, there is the issue of influencing judges via bribery. In general, if corruption is a widely practiced and accepted form of social and economic interaction, then it may also affect the supreme court. In particular, a corrupt executive may try to undermine the separation of powers within the political system by influencing judges using many forms of bribery. Hence, if politicians are corrupt, the *de facto* independence of judges may be lower than their *de iure* position. However, if corruption is a more general problem of a society, we might see the opposite effect: societies may support the jurisdiction over and above its formal role in the division of power to keep corruption somehow at bay. In the empirical analysis, we include the mean corruption index reflecting the general level of corruption in a country, as well as an indicator based on the WVS that concentrates on the respondent's assessment of political corruption in their country.

2.4 Some Control Variables

A priori, it is not clear whether good institutions lead to higher incomes or whether higher incomes enable societies to "afford" good institutions (see, e.g., Chong and Caldéron 2000). It has therefore become common practice to control for the log of GNP per capita.

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[6]   This is reflected in the construction of the index of *de facto* JI: some variables cover the period between 1960 and today. Regime changes will thus not lead to an immediate change in the index values.

Another factor that might influence the results is geography. Often, dummy variables for Africa (and other continents) are used but we decided to take the latitude of a country into account based on the observation that economies in more temperate zones have a number of advantages such as less health problems, better conditions for agriculture and – possibly – less natural disasters.

3. Data description

Although for some variables we have many more observations, due to missing data constructing a consistent data set containing the variables of interest results in a maximum of 46 cases. The sample is not necessarily a representative sample neither of the world population nor of the geographic location of countries. The data do cover all regions in the world, though (see Table 1):

Table 1: Regional breakdown of available observations

Region	No of cases
Africa	3
Asia	9
Australia	1
Eastern Europe	10
North America	1
South America	8
Western Europe	14

African countries are very much underrepresented, while European and South American countries are over-represented.

Reflecting the theoretical discussion above, we consider the following variables in our analysis (see Table 2):

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[7] A possible counterargument would be that high stability could also mean stability of a dependent judiciary.

Table 2: Information on variables

Variable	Source	Coding	Corre-lation	Sample
DE FACTO JI	Feld and Voigt (2003)	Continuous between 0 and 1.		0, 1
DE IURE JI	Feld and Voigt (2003)	Continuous between 0 and 1.	0.22	0, 1
LEGAL CONFIDENCE	World Value Survey	Average of individual level coding ranging from 2: very much confidence, 1, -1, to –2: non at all (see the Appendix for original wording in survey).	0.19	0, 1
LOENGL	La Porta et al. (1998)	Dummy (1, 0).	-0.01	1
LOFREN	La Porta et al. (1998)	Dummy (1, 0).	-0.02	1
LOGERM	La Porta et al. (1998)	Dummy (1, 0).	0.34	1
LOSCAN	La Porta et al. (1998)	Dummy (1, 0).	0.06	1
LOSOCI	La Porta et al. (1998)	Dummy (1, 0).	-0.27	1
PROTESTANT	La Porta et al. (1998)	Share in %.	0.15	1
CATHOLIC	La Porta et al. (1998)	Share in %.	-0.07	1
MUSLIM	La Porta et al. (1998)	Share in %.	-0.08	1
ORTHOD	CIA World Fact Book	Share in %.	-0.09	1
OTHER	La Porta et al. (1998)	Share in %.	0.09	1
LATITUDE	La Porta et al. (1998)	Actual latitude.	0.20	1
LOG GNP PER CAPITA	La Porta et al. (1998)	Log of per capita GNP.	0.38	0, 1
AVELF	Easterly and Levine (1997)	Average ethnolinguistic fractionalization.	-0.03	1
CORRUPTION	MCI Index (2001)	Mean of corruption index (higher values imply lower corruption).	0.44	1
POLCONIII	Henisz (2000)	Number of independent branches of government with veto power over policy change.	0.12	1
FEDERALISM	Elazar (1995)	Dummy (1, 0).	-0.01	1
CHECKS	Beck et al. (2000)	Number of institutions that provide legislative "checks".	0.001	1
TRUST	World Value Survey	National average of answer to question "Can people be trusted?", originally coded (1, 0). See Appendix for original wording in survey.	0.21	1
PRESS FREEDOM	Freedom House	Coding 0: no press freedom to 100: Maximum press freedom.	-0.31	1
DATE	Various sources	Year when constitution came into force.	-0.20	2
POLCONV	Henisz (2000)	Same as POLCONIII (see above) but also including the judiciary and sub-federal units.	0.27	2
US COURT	Harutyunyan and Mavcic (1999)	Dummy (1, 0).	-0.37	2
AUSTRIAN COURT	Harutyunyan and Mavcic (1999)	Dummy (1, 0).	0.29	2
MIXED COURT	Harutyunyan and Mavcic (1999)	Dummy (1, 0).	0.18	2
FRENCH COURT	Harutyunyan and Mavcic (1999)	Dummy (1, 0).	-0.04	2
STABILITY	Easterly and Levine (1997)	Number of violent demonstrations involving the use of physical forces.	0.22	2
VOTER TURNOUT	Institute for Democracy and Electoral Assistance	Number of votes divided by size of electorate.	0.03	2
SYSPRES	http://paradocs.pols.columbia.edu/datavine	Presidential system, Dummy (1, 0).	-0.51	2

POLCORRUPT	World Value Survey	National average of answer to question "Importance of political corruption?", originally coded (1: not important, 2, 3, 4: very important), lower values imply higher corruption. See Appendix for original wording in survey.	-0.39	3
TECHNOCRAT	World Value Survey	National average of answer to question "Should technocrats run the country?", originally coded (1: not important, 2, 3, 4: very important). See Appendix for original wording in survey.	-0.26	3
COLLECTIVE ACTION	World Value Survey	Factor estimated using principle component analysis using answers on "Active voluntary organization membership?", "Complete control over one's own life?", and "Country run by a few big interests?". See Appendix for original wording in survey.	-0.01	3

Notes: Correlation is the Pearson correlation coefficient between the variable in the row and *de facto* JI using the maximum number of observations in the sample. Sample 0 contains 46 cases, Sample 1 contains 39 cases, Sample 2 contains 30 cases, and Sample 3 contains 20 cases. The full list of countries is given in the Appendix.

4. Explaining *de facto* Legal Independence in a Multivariate Setting

In view of the theoretical discussion above, we cannot get many empirically relevant restrictions over and above the choice of variables that should be included in our model. However, we think that special emphasis needs to be placed on avoiding spurious relationships. Therefore, our modeling strategy is general-to-specific, as advocated by Hendry (1993). This strategy ensures that the inferences are statistically valid. Since we have quite a number of potentially influential variables, there is the danger that our final parsimonious model is not an encompassing model, as inference may be path dependent. Based on the re-examination of the vices and virtues of data mining by Hoover and Perez (1999), Hendry and Krolzig (1999) develop a model reduction algorithm, that, according to a wide range of Monte-Carlo studies, is surprisingly powerful in recovering the underlying data generating process (DGP). We apply this approach to the problem at hand.

There is a further complication in the present analysis, as not all variables are available for the same number of cases. The empirical strategy needs to be adjusted if we want to take into account the available indicators for all influences discussed in the theoretical section. We do general-to-specific estimation and testing for three data sets. The first data set contains variables that are available for at least 39 cases. We then apply

general-to-specific modeling to derive a specific model. This model is then used as a base model in the other two sample sizes. The second data set contains 30 cases and we add other indicators to the base model and pursue a consistent testing-down process. Finally, we use a data set of 20 cases and perform a similar analysis.

The general unrestricted model for the biggest data set includes all variables as indicated in Table 1. Statistical tests indicate that it is an acceptable representation of the DGP, as it does pass tests for heteroscedasticity, normality, Chow-tests for parameter constancy, and a RESET-test for misspecification. We also check for collinearity, and find a considerable amount of common variation among the explanatory variables. The eigenvalues of the second-moment matrix range from 10.8 to 0.0009. Most of the collinearity is between explanatory variables and the constant term. There is also noteworthy collinearity between the variables *de iure* JI, GNP per capita, POLCONIII, latitude, trust, and corruption index. In the testing-down process we make sure that the specific model is not the result of an excessive influence of collinearity.

The specific model that emerges out of the general-to-specific process is the following (see Table 3):

Table 3: *Sample 1*: Specific model for *de facto* judicial independence (39 cases)

Variables	Coeff.	Betas	SE	Instability	Part. R^2
Constant	-0.807**		0.253	0.20	0.23
DE IURE JI	0.563*	0.31	0.220	0.21	0.16
LEGAL CONFIDENCE	0.284**	0.49	0.081	0.19	0.27
LOG GNP PER CAPITA	0.130**	0.74	0.027	0.22	0.41
PROTESTANT	-0.003*	-0.31	0.001	0.48*	0.11

*Notes*: An *(**) indicates significance at a 5% (1%) significance level.

All of the variables remaining in the model are significant at a level of 5% or lower and they are also jointly significant (see Table 4). Moreover, the excluded variables are jointly insignificant with respect to the final model. The partial R^2 listed in the last column of Table 3 indicates that in the final specification, collinearity does not appear to be a problem, as none of the values is particularly small.

The fit of the equation, measured using both R^2 and adjusted R^2, is not bad for cross-sectional data. Figure 1 shows actual and predicted values.

Figure 1: Predicted versus actual values
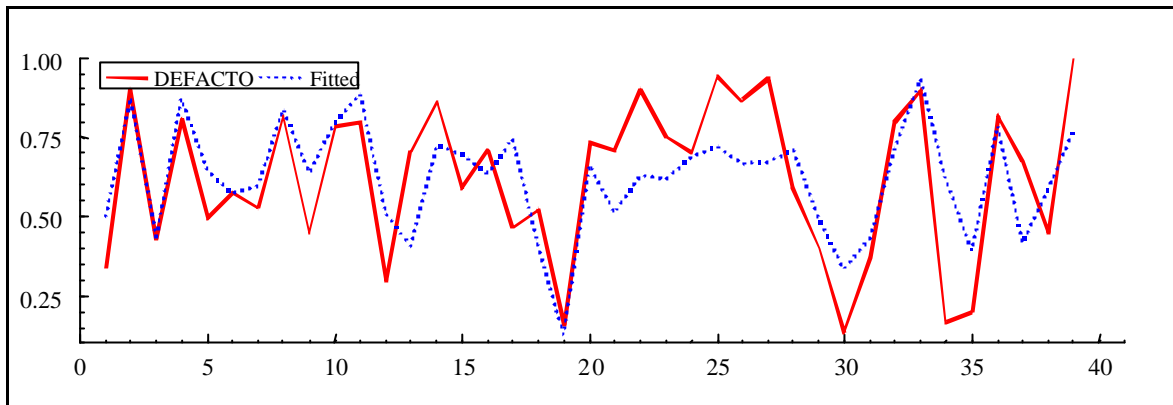
Do we find any particular outliers in our predicted values? To answer this question, we estimate the model recursively and evaluate one-step residuals in relation to the standard error of the regression (σ). Figure 2 presents these residuals bounded by 95%-confidence bands.

Figure 2: One-step residuals (+/- 2σ, approximately 5% significance level)
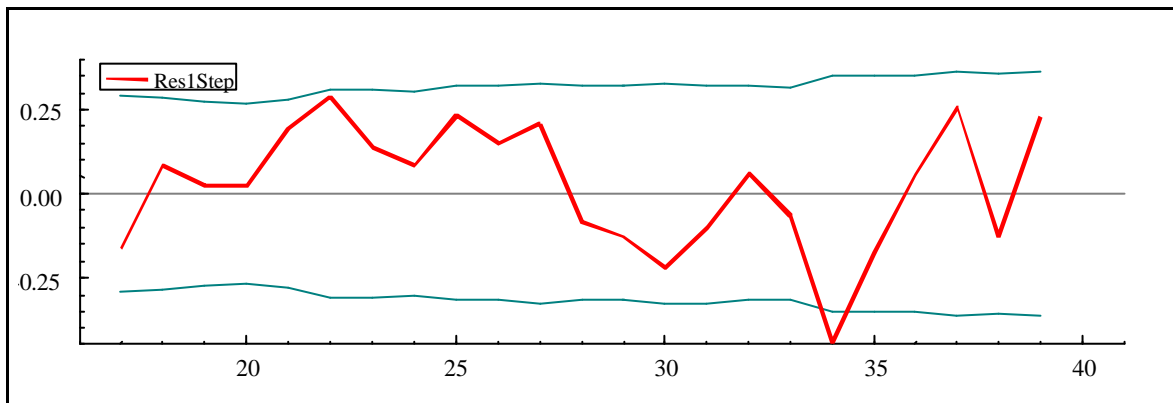
There is one significant outlier, namely the Czech Republic. We will see below what happens when we control for this observation.

Table 4 contains the outcome of applying a battery of diagnostic statistics. None of these indicate any misspecification, as the model passes tests for heteroscedasticity (White (1980) using squares of regressors), normality (Jarque and Bera (1987) with a small-sample correction), and misspecification (RESET test based on Ramsey (1969)).

When assessing the stability of parameters in a cross-section context, traditional Chow tests are not particularly helpful, as the order of observations is arbitrary. However, an alternative test for insample parameter constancy was developed by Hansen (1992). It tests both variance and coefficients on variables for stability and does not rely on an a

priori splitting of the sample. Applying this test, we neither find evidence of instability for the variance of the equation nor for the coefficients as a group (see Table 4). This procedure can also be used for calculating individual parameter stability tests. Here, some instability is found for Protestant. Thus, estimates for this variable do not seem to be very robust.

Table 4: *Sample 1*: Diagnostic information for specific model (39 cases)

Diagnostic indicator		Diagnostic indicator	
Testing-down	$F(15,19) = 0.55$	SE equation (σ)	0.18
Joint test remaining	$F(4,34) = 8.7**$	R^2	0.50
Heteroscedasticity test	$F(8,25) = 0.48$	Adj. R^2	0.45
Normality test	$Chi^2(2) = 3.2$	Instability variance	0.35
RESET test	$F(1,33) = 0.006$	Instability joint	1.68

Notes: An *(**) indicates significance at a 5% (1%) significance level.

For the reduced model presented in Table 3, there are additional observations available. Re-estimating the model using Sample 0 containing 46 observations reveals that the influence of Protestant is indeed not robust. It is not significant even at a 10% level anymore. In addition, we face another outlier from the new observations, Russia. This may not be entirely surprising, as the quality of the data for some Eastern European countries is not very good. Controlling for both Czech Republic and Russia and dropping Protestant, we get the model presented in Table 5:

Table 5: Final model for *de facto* judicial independence (46 cases)

Variables	Coeff.	Betas	SE	Part. R^2
DE IURE JI	0.552**	0.31	0.195	0.17
LEGAL CONFIDENCE	0.205**	0.35	0.065	0.20
LOG GNP PER CAPITA	0.094**	0.49	0.021	0.34
Constant	-0.535*		0.210	0.14
Czech Republic Dummy	-0.446*	-0.27	0.177	0.14
Russia Dummy	-0.491*	-0.30	0.181	0.16

Notes: An *(**) indicates significance at a 5% (1%) significance level.

The qualitative results are similar to what we found in Table 3. Table 6 shows that the diagnostics for this model are fine. Instability tests cannot be computed due to the presence of the outlier dummies. However, when estimating the model without the dummies, the tests do not find any instability.

Table 6: Diagnostic information for final model (46 cases)

Diagnostic indicator		Diagnostic indicator	
Joint test remaining	$F(5,40) = 9.6**$	SE equation (σ)	0.17
Heteroscedasticity test	$F(8,31) = 0.54$	R^2	0.55
Normality test	$Chi^2(2) = 0.64$	Adj. R^2	0.49
RESET test	$F(1,39) = 2.17$		

Notes: An *(**) indicates significance at a 5% (1%) significance level.

To summarize, we have developed a statistically valid reduction of the general model outlined above. We find that *de facto* JI is robustly explained by *de iure* JI, GNP per capita, and the confidence of the population in the working of the legal system. This final model survives a wide range of specification tests and can be seen as a credible base model for extending the analysis by considering additional variables for which less observations are available.

5. Explaining *de facto* Legal Independence Using Other Indicators

In our effort to include other indicators in the explanation of *de facto* JI, we have to resort to a smaller sample size. The base model from Table 5 of the previous section will be enhanced by DATE, AUSTRIAN COURT, FRENCH COURT, MIXED COURT, STABILITY, VOTER TURNOUT, POLCONV, SYSPRES. The number of cases in sample 2 is 30.

The testing down process, conditional on including the variables from the base model, leads to the results presented in Table 7.

Table 7: *Sample 2*: Final model for *de facto* judicial independence (30 cases)

Variables	Coeff.	Betas	SE	Part. R^2
DE IURE JI	0.518**	.42	0.144	0.35
LEGAL CONFIDENCE	0.087	.16	0.059	0.09
LOG GNP PER CAPITA	0.076**	.45	0.019	0.42
STABILITY	0.022**	.35	0.007	0.32
SYSPRES	-0.243**	-.41	0.053	0.57
Dummy Czech Republic	-0.562**	-.43	0.134	0.43
Constant	-0.42		0.207	0.15

Notes: An *(**) indicates significance at a 5% (1%) significance level.

Of the variables from the base model, only confidence in legal system is not significant. The constant term is only significant at a 10% level but removing it from the model would lead to a violation of the reduction test. The stability indicator and the presidential system variable, on the other hand, are showing highly significant influences.

Again, the diagnostic statistics are fine, as indicated by Table 8. Note that the fit of the equation is high for this type of data. The assumption of normally-distributed residuals would be violated if we did not include the dummy variable for the Czech Republic.

Table 8: *Sample 2*: Diagnostic information for final model (30 cases)

Diagnostic indicator		Diagnostic indicator	
Joint test remaining	$F(6,23) = 13.6$**	SE equation (σ)	0.13
Heteroscedasticity test	$F(10,12) = 0.44$	R^2	0.78
Normality test	$Chi^2(2) = 0.78$	Adj. R^2	0.72
RESET test	$F(1,22) = 1.76$		

Notes: An *(**) indicates significance at a 5% (1%) significance level. The use of dummies makes it impossible to compute the stability tests.

Finally, we look at the remaining variables included in Sample 3, the smallest sample containing 20 observations. At this stage, we add the degree of political corruption, attitude towards technocratic governance, and the Factor "collective action potential" to the base model from Table 5. Since the Czech Republic drops out of the sample, we do not need the dummy variable here.

The testing down process eliminates all of these new variables, and only the base model variables remain significant in the reduced model. An exception is the log of GNP per capita, which is significant at a 10% level only. This implies that in the interpretation of our findings in the next section we will refer primarily to the variables listed in Table 7.

6. Interpretation of Results

Concentrating on the robust influences, that means those variables which survive the testing down process, the first result of interest is the positive coefficient of the *de iure* judicial independence indicator. Hence anchoring JI by formal laws increases actual JI. What is the meaning of the size of the coefficient? It implies that an increase in the index value of *de iure* JI raises *de facto* JI by 0.55 points. Although the size of the coefficients is not directly comparable, if actual JI were fully explainable by written laws then we would expect that the elasticity of *de iure* with respect to *de facto* JI is one. Computing this elasticity at the means of *de facto* and *de iure* JI in the sample with 46 cases, we get a value of 0.61. Since the partial derivative has been estimated with uncertainty and the sample means of these two variables are relatively similar, it is meaningful to ask whether the coefficient on *de iure* JI is statistically different from unity. We can clearly reject this hypothesis at a 5% level ($Chi^2(1) = 6.59*$). Thus, our first important result is that there is not a one-to-one relationship between *de iure* JI and *de facto* JI.

The indicator for the confidence in the legal system by the public shows a positive influence. The higher legal confidence, the more independent will the prime judges be *de facto.* Arguably, this supports the point made above, namely that judges can increase their independence by generating trust about their work in the general populace. Or, put differently, legal trust can be a substitute for written laws. It should also be noted that the correlation coefficient between legal confidence and general trust in the society is significantly positive (0.35). However, the explanatory power of legal confidence is much higher, as it is more specific to the question at hand than general trust.

Societies with a higher GNP per capita have granted their judges relatively more JI compared to what is written down in the constitution. This variable reflects the divide in the world between more and less developed countries. However, this variable is more a

control variable for factors that we cannot directly measure than a clear explanation of exactly why there is a difference between *de iure* and *de facto* JI.

What about the respective importance of these effects in explaining *de facto* JI? Given the different units in which these variables are measured, it is difficult to directly compare the estimated regression coefficients. However, one can compare the relative importance of variables within the estimated model using standardized regression coefficients (betas). In the final model covering the largest sample, displayed in Table 5, log GNP per capita shows the highest standardized regression coefficient, followed by confidence in legal system, and *de iure* JI with the lowest value.

After considering other influences through lowering the sample size, we found significant effects for the stability of the political system. Greater political instability raises *de facto* JI. Thus, if the executive and legislative is threatened by social unrest, societies are more likely going to ensure that the legal system will be insulated from political pressures. Moreover, this insulation is not based on formal rules, which could be easily adjusted after a change in government, but informal rules. This interpretation is fostered by a comparison of correlation coefficients between instability and *de facto* JI (0.22) as well as *de iure* JI (0.003). It should also be emphasized that this variable suffers from a sample selection bias. In particular, we do not have observations on societies exhibiting strong instability. Thus, the above finding really relates only to moderate degrees of social unrest.

Finally, we find that presidential systems are characterized by a lesser degree of *de facto* JI than parliamentary systems. Looking at the correlation coefficients between presidential systems and *de facto* JI reveals a weak but positive relationship (0.04). This may reflect the idea of a separation of powers a la Montesquieu, as generally in a presidential system the president has much more power than the executive in a parliamentary system.[8] Judging from the correlation coefficient between presidential system and *de facto* JI (-0.51), we find a strong inverse relationship. In other words, the separation of powers is less successfully implemented in presidential systems than it is in parliamentary systems. As is apparent from Table 7, this result also holds in the multivariate case.

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[8] In almost all cases in the sample, the president is directly elected by the population. In one case (South Africa) the president is elected by an assembly. Separating this case from the dummy capturing presidential systems does not affect the marginal significance level of the presidential dummy very much, while the a dummy containing South Africa is not significant.

What about the relative importance of explanatory variables in Table 7? Apart from confidence in legal system, most of the variables are quite similar in importance. Since legal confidence is not significant in this sample (marginal significance level of 0.16), it is interesting to ask why this is the case. When including variables step-by-step, we find that the dummy for presidential system reduces the explanatory power of legal confidence. However, computing recursive t-tests using Sample 1, we find that legal confidence is more significant in the larger sample than in Sample 2. Thus, it seems to be a combination of both collinearity and differing sample that is responsible for the insignificance of legal confidence in Table 7.

7. Conclusion

The starting point of this paper was the observation that *de iure* JI and *de facto* JI are imperfectly correlated. Hence our first question was how the factually observed levels of judicial independence can be explained. The second question dealt with is a potentially frustrating issue: given that a society's politicians want to implement a factually independent judiciary, to what degree is it in their hands to establish it? Asked differently: to what degree does the observable level of judicial independence depend on variables beyond the reach of politicians?

18 potentially relevant variables were presented above: out of them, six can be influenced by deliberate institutional choice, whereas ten of them do not appear to be directly influenceable. The remaining two variables are control variables. This very large number of potentially relevant variables was boiled down by using the general-to-specific approach as developed by Hendry (1993). We find that *de facto* JI is robustly explained by *de iure* JI (subject to deliberate choice), GNP per capita (a control variable), and the confidence of the population in the working of the legal system (not subject to deliberate choice). If a smaller sample size with better data availability is used, we find that instability (measured by the number of violent demonstrations involving the use of physical forces) is correlated with higher levels of *de facto* JI, whereas presidential systems (as compared to parliamentary ones) are correlated with lower levels of *de facto* JI.

On the basis of the analyzed samples, *de facto* JI is thus influenced by at least some variables that are subject to deliberate choice, in particular *de iure* JI and parliamentary

versus presidential system. Given that *de facto* JI is important for economic growth and development, this is good news. The confidence of the population in the legal system is not a variable easily within the reach of the political reformer. This variable reflects the trust of the population in the working of the judiciary and it is likely that its build-up needs a long-time perspective. There is also the issue that legal trust may be boosted by the *de facto* JI, and that the two variables are in some sort of positive feedback loop.[9]

These results should, however, be read with some caution. First, a number of variables that one would classify as important influences on *de facto* JI, for example the factor "collective action", turn out to be insignificant. As these variables are only available for a rather small number of countries, we may simply be lacking enough observations to disentangle their effects. Thus, it is a desideratum to construct indicators for the other theoretically relevant variables that are available for the entire sample size. Secondly, the data for *de iure* as well as *de facto* JI are not beyond any doubt. Currently, a second wave of data gathering is under way. After its conclusion, we will know more about the precision of the data.

Finally, more research concerning the transformation mechanisms that drive the results is certainly necessary. To name but one example: why is it that higher GNP per capita is correlated with higher levels of *de facto* JI? What is the actual cause behind this correlation?

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[9] See Hayo (1998) for a similar argument relating to inflation aversion in the population and central bank independence.

Appendix

List of countries in samples

Country	Sample	Country	Sample
Argentina	0, 1, 2, 3	Lithuania	0
Australia	0, 1, 3	Mexico	0, 1, 2, 3
Austria	0, 1, 2, 3	Netherlands	0, 1,
Bangladesh	0, 1, 2, 3	Nigeria	0, 1,
Belgium	0, 1, 2	Pakistan	0, 1, 2
Brazil	0, 1, 2	Peru	0, 1, 2, 3
Bulgaria	0, 1, 2, 3	Philippines	0, 1, 2, 3
Chile	0, 1, 2, 3	Portugal	0, 1, 2
China	0, 1,	Russia	0
Colombia	0, 1, 2, 3	Slovakia	0
Croatia	0	Slovenia	0
Czech	0, 1, 2	South Africa	0, 1, 2, 3
Denmark	0, 1, 2	Spain	0, 1, 2
Estonia	0	Sweden	0, 1, 2, 3
Finland	0, 1, 2, 3	Switzerland	0, 1, 2, 3
France	0, 1, 2	Taiwan	0, 1,
Georgia	3	Turkey	0, 1, 2, 3
Ghana	0, 1, 2	UK	0, 1,
Hungary	0, 1, 2	Ukraine	0
Iceland	0, 1,	Uruguay	0, 1, 3
India	0, 1, 2, 3	USA	0, 1, 2, 3
Italy	0, 1, 2	Venezuela	0, 1,
Japan	0, 1, 2	W-Germany	0, 1, 2, 3
Korea, South	0, 1, 2		

Notes: Sample 0: 46 cases, Sample 1: 39 cases, Sample 2: 30 cases, and Sample 3: 20 cases.

World Value Survey

Primary data were obtained from the "Zentralarchiv für Empirische Sozialforschung" in Cologne. Waves are 1981-84, 1990-93, and 1995-97. When several years of data on the same question are available for a country, arithmetic averages were used in the analysis.

Original wording of questions

LEGAL CONFIDENCE

Please look at this card and tell me, for each item listed [here the legal system], how much confidence you have in them, is it a great deal, quite a lot, not very much or none at all?

TRUST

Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people?
- Most people can be trusted
- Can't be too careful [TRANSLATION: ="have to be very careful"]
- Don't know [DO NOT READ OUT]

POLCORRUPT

How widespread do you think bribe taking and corruption is in this country?
- Almost no public officials are engaged in it
- A few public officials are engaged in it
- Most public officials are engaged in it
- Almost all public officials are engaged in it
- DK

TECHNOCRAT

I'm going to describe various types of political systems and ask what you think about each as a way of governing this country. For each one [here: Having experts, not government, make decisions according to what they think is best for the country], would you say it is a very good, fairly good, fairly bad or very bad way of governing this country?

Questions used for constructing factor "COLLECTIVE ACTION"

Generally speaking, would you say that this country is run by a few big interests looking out for themselves, or that it is run for the benefit of all the people?
- Run by a few big interests
- Run for all the people
- Don't know [DO NOT READ OUT]

Now I am going to read off a list of voluntary organizations; for each one, could you tell me whether you are an active member, an inactive member or not a member of that type of organization? Categories: Active member, Inactive member or Don' t belong.

- Church or religious organization
- Sport or recreation organization
- Art, music or educational organization
- Labor union
- Political party
- Environmental organization
- Professional association
- Charitable organization
- Any other voluntary organization

Some people feel they have completely free choice and control over their lives, while other people feel that what they do has no real effect on what happens to them. Please use this scale where 1 means "none at all" and 10 means "a great deal" to indicate how much freedom of choice and control you feel you have over the way your life turns out.

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