

Judging the Market: Judicial Independence, the Rule of Law, and Economic Development

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Abstract: Independent judicial systems exist to protect individual rights from state encroachment and majoritarian pressures. Citizens' property rights depend particularly on judiciaries' willingness and ability to restrain the political branches of power. In turn, upholding the rule of law from the perspective of enforcing contracts and securing property rights is seen as crucial for promoting economic development because investment capital will flee without government commitments not to seize property or tax profits at confiscatory rates. This article brings empirical research closer to the understanding of those judging the market: investors, entrepreneurs, and analysts that recommend where to commit resources abroad. We test hypotheses connecting *de jure* judicial independence, *de facto* judicial independence, and the rule of law using a unique dataset of 174 countries from 1996–2019. Importantly, we find that judicial independence in practice (*de facto* independence) is more important for the rule of law than formal judicial independence (*de jure* independence). Thus, promoting *de facto* judicial independence can improve countries' prospects for economic and political development. To be sure, courts in countries that have *de jure* independence can also be *de facto* independent. We find, however, that institutional talk is cheap in the context of the judiciary; markets will judge countries with low rule of law harshly for investment and ensuing economic growth.

Keywords: Judicial Independence, Rule of Law, Economic Development

1. Introduction

Independent judicial systems exist to protect individual rights from state encroachment and majoritarian pressures. Citizens' property rights depend particularly on judiciaries' willingness and ability to restrain the political branches of power. In turn, upholding the rule of law from the perspective of enforcing contracts and securing property rights is seen as crucial for promoting economic development because investment capital will flee without government commitments not to seize property or tax profits at confiscatory rates (North, 1981; Weingast, 1997; Haggard and Tiede, 2013; Brown et al., 2011; Touchton, 2016).

Yet, upholding property rights may frustrate executives' foreign policy goals, as they did in 1952 when United States President Truman nationalized the U.S. steel industry several days before a planned steelworkers strike. The Supreme Court intervened two months later, ruling that U.S. Presidents cannot nationalize industries (*Youngstown Sheet and Tube Co. v. Sawyer*, 1952). More recently, the French *Conseil D'Etat* ruled in favor of GDF Suez, finding that the government violated investors' rights by mandating natural gas prices below the energy company's operating costs (*Conseil D'Etat*, decisions 362165, 362774, Jan. 30, 2013). This forced the government to raise rates despite strong popular opposition. Some courts, however, do relent in the face of executive pressure, as Argentina's Supreme Court did by supporting President Cristina Fernandez de Kirchner's seizure of Spanish multinational Repsol's assets (*Economist*, 2012). The President's actions boosted her approval ratings, but at the expense

of individual investors' rights, which resulted in a financial exodus from the country and a downgrading of Argentina's development prospects.¹

Based on these examples, one might expect that U.S. and French courts enjoy stronger constitutional insulation from political pressures than Argentina's. However, France's legal system, based in Civil Law, provides for significantly less *de jure* independence than the Argentine constitution (La Porta et al., 2004, 2008). *De Jure* judicial independence refers to formal insulation from political pressures through lifetime appointments, the ability to set legal precedent, and the ability to review the constitutionality government actions. Argentina's system resembles that of the United States in this way. Unlike the U.S. Supreme Court, however, the Argentine court's *de jure* separation did not translate to *de facto* insulation from executive pressures to expropriate. Outcomes like those in Argentina occur commonly outside of industrialized democracies, as presidents regularly ignore judicial rulings or remove judges who rule against them (Helmke, 2012; Feld and Voigt, 2003, 2006; Levitsky and Way, 2002).

1.1 Problem Statement

Clearly, *de jure* independence alone will not protect the rule of law. It also remains uncertain whether *de facto* autonomous courts contribute to the rule of law's protection or simply reflect the socio-economic and historical-institutional foundations supporting past commitments to limited government as in France. If so, practitioners and policymakers would do best to turn their attention away from strengthening courts and toward these underlying conditions. We fill a gap in our knowledge of the judicial system, the rule of law, and subsequent investment by asking: Do judicial institutions and practices influence the rule of law?

1.2 Aim of the Study

We argue that *de facto* independent judiciaries bolster the rule of law beyond their correlation with wealth, regime type, legal tradition, and other conditions thought to support limited government. We do not posit that judges themselves necessarily support private property more than executives or legislators. Rather, we expect that protection from immediate political pressures provides greater opportunity to protect minority rights from majority desires than in other branches of government.² We therefore hypothesize that countries with greater *de facto* judicial independence exhibit greater rule of law than countries with judiciaries subservient to the executive/legislative branch- even if these countries feature high levels of *de jure* independence. For economic development, then, this logic holds that governments should begin with *de jure* independence but also ensure that *de facto* independence follows.

We test our expectations against a unique dataset covering 174 countries from 1996 to 2019. Results from Arellano-Bond, GMM, and two-stage least squares (2SLS) estimations strongly support our expectation that *de facto* independence significantly improves the rule of law after controlling for other important determinants. Further analysis finds that the results remain robust to endogeneity between present levels of judicial independence and past values of the rule of law. In contrast, the evidence suggests that *de jure* independence plays no discernible role for the rule of law, all else equal.

These results make valuable contributions to our understandings of courts and the political economy of development. First, we disentangle *de facto* independence from *de jure* independence, demonstrating the former's pivotal role for the rule of law. We believe this brings empirical research closer to the understanding of those judging the market: investors, entrepreneurs, and analysts that recommend where to commit resources abroad. Importantly, we find that judicial autonomy exists separately from the rule of law and does not simply reflect past commitments in this area. Thus, promoting *de facto* judicial independence can improve countries' prospects for economic and political development. To be sure, countries

¹ See the *New York Times*, "Move on Oil Company Draws Praise in Argentina" April 26, 2012.

² This is like the argument in La Porta et al. (2003)

with strong *de jure* independence can still boast *de facto* independent courts. We find, however, that institutional talk is cheap in the context of the judiciary.

2. Literature Review

We define the rule of law as a set of transparent rules enacted *ex ante* that limits a governing entity's discretionary action (Hadfield and Weingast, 2014). Scholars across disciplines generally explain the emergence of such systems as a response to competition between potential rulers, primarily in Western Europe. For example, the influential Bellicist and Neoclassical models of the state posit that economic inequality generated incentives for those at a comparative disadvantage in producing wealth to invest their efforts in looting from others (Boix, 2014; Tilly, 1979). Over time, challenges by rival roving bandits incentivized leaders to become stationary rulers over a territory (Olson, 1993). Rulers exchanged protection and preferential property rights for the revenue necessary to defend against threats and expand when possible. Variation in the initial limits on government depended primarily on the strength of external threats (Tilly, 1979), the distribution of power internally (North, 1981), and historical timing (Ertman, 1997; Gerschenkron, 1964). Strong enemies required greater resources to defeat, weakening rulers' bargaining power. Relative equality acted similarly by increasing the number of actors in governments' winning coalitions. Late-developing states, however, faced existential threats that demanded rapid institutional modernization. This tended to produce fewer limits on government initially.

Colonialism determined initial property rights for most of the non-European world. Some emphasize the identity of the colonizer, pointing to cultural influences like legal tradition, religion, and education as key factors influencing the rule of law (Grier, 1999; La Porta et al., 1999, 2004). British and American colonies inherited common law legal tradition, described below, but almost all other colonies received civil law from their French, Spanish, Portuguese, German, Dutch, Belgian or Italian colonizers.³ The relative decentralization of British colonies compared to French and Spanish may have aided the development of local governments and educational systems (Hansson, 2009). These explanations fall short, however, considering the diversity of property rights outcomes within and between colonies under the same imperial power (e.g., Bates et al., 2007; Banerjee, 2005). Most point to whether colonial rulers implemented extractive or settler colonies (e.g., Acemoglu et al., 2001; Acemoglu, 2005). Colonies with more European settlers tended to inherit legal systems with broader property rights while those with relatively few colonists employed forced labor systems.

The tension between economic growth and leaders' survival in office drove and continues to drive changes in property rights and the rule of law. Rulers' fear being deposed and therefore seek to maximize their share of discretionary revenue relative to the economy by becoming a third party to all economic activity by enforcing contracts and collecting taxes (Brennan and Buchanan, 1980; North, 1981). Doing so reduces transaction costs in the economy, which boosts growth and increases government revenue. However, governments incur the costs of providing public goods, enforcing rules, and extracting revenue. Thus, revenue typically grows at a rate slower than the economy. Technological innovations often complicate further taxation by forcing governments to develop new capacities to measure and tax novel transactions.⁴ In addition to these economic constraints on revenue, growth gives rise to new actors with interests and resources to challenge the current property rights regime. Altogether, these changes create short-term incentives for governments to renege on their promises to respect the rule of law, sacrificing long-term growth but possibly improving their survival odds. This time-inconsistency problem generates uncertainty around governments' commitments to the rule of law (Weingast, 1997).

³ Our sample features only 39 Common law countries relative to 143 Civil law systems. See Merryman (1968) for a comprehensive discussion of civil law history.

⁴ Governments also invest significant resources in developing ideologies that reduce the cost of enforcement by fostering quasi-voluntary compliance (Levi, 1988).

Institutional arrangements can help governments to demonstrate the credibility of their commitments to respect limits on their power. Democracy provides more credibility than autocracy, on average, due to the relative low cost of removing leaders. Within democracies, systems of checks and balances or other separation of power increase the actors required for a government to act (Tsebelis, 2002; Persson and Tabellini, 2003; North and Weingast, 1989; Weingast, 1997; Keefer and Stasavage, 2003; Touchton 2015a, 2015b). Parliamentary systems that integrate executive and legislative functions in one branch have fewer veto players, and less policy stability, than presidential systems (Tsebelis, 1995). Proportional representation electoral systems tend to increase veto players by increasing the political parties in a system and therefore the probability of coalition governments. Federal systems also add veto points.

2.1 De Facto and De Jure Independence

Governments might announce their commitments to respect enforce contracts and property rights; however, politicians may fall prey to their (short-term) desire to seize private property (Landes and Posner, 1975). Truly independent judiciaries are important for making credible commitments to the rule of law, just as fully operational checks and balances. In this case splitting judicial power away from executive and legislative authority is a common mechanism designed to increase credibility (Tsebelis, 2002; Barzel, 1997). In contrast to executive and legislative branches, the judiciary is usually not a majoritarian institution, though it is commonly found in democracies. In addition, establishing independent judiciaries provides another means for governments to signal their commitments to the rule of law. Judges may protect the public from predatory legislation or executive action undermining existing law if the judiciary is an impartial arbiter that will hear both sides' arguments, rule impartially and force the parties to follow the law or contract.

Scholars contend *de jure* judicial independence under common law legal systems generates greater protection for outside investors, and other disadvantaged litigants compared to civil law (Djankov et al., 2003; La Porta et al., 2004). There are two central mechanisms. First, the common law system tends to rely on judicial precedent rather than legislative additions to the law. In common law systems, judgements add to the sum total of the law. In contrast, legal judgements in civil law systems do not have the same weight or set binding legal precedent. In civil law systems, binding guidelines come entirely from legislation. Judges with the discretion to interpret legislation, not just enforce it, will raise the prospects for these judges to set and maintain rights. Protecting constitutional rights includes the rights of foreigners, their firms, and anyone who contracts with the government (Djankov et al., 2002; La Porta et al., 2002). Additionally, judges that set binding precedents that protect property rights and contract enforcement then increase credibility of the commitment to the rule of law because it becomes more difficult for other justices to rule against established precedent. Setting judicial precedent, then, is important for investors' rights and for the rule of law.

The second aspect of *de jure* independence comes from lifetime judicial tenure. The logic here is that judicial decisions stem in part from their institutional environment (Brace and Gann-Hall, 1989, 1995). For instance, Besley and Payne (2003) argue that elected judges are relatively populist in their rulings compared to appointed judges. This follows the logic that judges who stand for elections must seek popularity among the public. Unpopular rulings are arguably less likely in these contexts relative to appointed judges, who have protection from popular pressures. These appointed judges, then, have more practical freedom to make judgements that might be unpopular, but serve to protect minority rights, such as investors', against the government. Nevertheless, even appointed justices with short terms in office have to consider their careers after the bench, in the event that reappointment does not occur. The prospect of a career after the bench generates incentives to offer different, preferential rulings to those who might hire the judges in the future. These justices can then fall prey to threatening litigants in both the private and public sector. Again, incentives emerge in these scenarios for judges to rule in a biased fashion to ensure their futures. Lifetime appointments resolve this issue and give judges the discretion to evaluate a case on its merits and avoid the

preferentialism potentially associated with short judicial appointments. The *de jure* freedom to contradict popular, but unconstitutional opinions or to anger powerful actors is essential for protecting minority rights for investors and property owners against more powerful litigants such as large politically influential firms or the government.⁵

Yet, judiciaries in many countries using common law institutions are independent on paper but subservient to the executive or to the public in practice. Self-interested governments are aware of these arguments and frequently attempt to increase their credibility by creating an independent judiciary. However, it is far easier for governments to create a *de jure* independent judiciary by passing laws, making rules and seating judges on the bench than to allow continued judicial independence in practice once it has been established. Politicians frequently have time-inconsistent preferences and may find it desirable to interfere with judges' (short-term) decisions. Politicians may even find it preferable to remove judges from the bench or suspend the judiciary entirely should the political situation demand it. Moser (1999) identifies this as a "second-order commitment problem" and it is prevalent on a global scale. As Feld and Voigt (2003) point out, the average length of their term that high court judges around the world serve is far below the term length enshrined in law.⁶

We argue that neither commitments to the rule of law nor *de jure* independence are credible under time-inconsistent preferences. This contrasts with others that argue legislatures will anticipate judicial rulings against unconstitutional violations of the rule of law in systems where this is possible and therefore refrain from passing such legislation.⁷ While possible, we find this unlikely-- constitutional review or other forms of *de jure* independence is small consolation compared to concrete evidence of judicial action. We focus on judges do in fact exercise checks on government power regardless of the *de jure* framework. We do not posit that the judiciary or judges themselves support property rights or limited government any more or less than the other branches of government. However, judges have greater motivation to protect the law when they are independent from executive or legislative pressures through separation of powers.

Before outlining our strategy for disentangling *de facto* from *de jure* independence, we emphasize that *de facto* independent courts need not necessarily improve the rule of law. Socioeconomic explanations for limited government highlight the importance of a sizeable middle class, economic development, or, in the developing world, relative ethnic homogeneity. If these underlying factors explain previous rule of law commitments and the establishment of independent courts, then courts may not contribute uniquely to the rule of law.

3. Research Methodology

We test our expectations using a sample of 174 countries from 1996 to 2019 using Arellano-Bond Dynamic Panel models to address possible endogeneity. The sample includes the broadest selection of countries and time span used to date given existing measures. As mentioned, concerns for endogeneity arise in this case because *de facto* judicial independence may be connected to previous commitments to the rule of law. *De jure* judicial independence could relate to previous rule of law scores as well. Similarly, GDP per capita (PPP) in one year may be endogenous to rule of law scores in prior years because rule of law levels influences other economic conditions. We account for these possibilities using three commonly used methods: Arellano-Bond dynamic panel estimation, GMM estimation with traditional instruments and two-stage least-squares instrumental variable estimation to address potential endogeneity (Roodman, 2013; Arellano and Bond, 1991; Holtz-Eakin et al., 1988).

⁵ Many constitutional framers considered legislative and executive constraints when they gave judges the power of constitutional review, but Friedrich (1968) argues that the recent European and U.S. legal environments did the most to promote the idea.

⁶ Feld and Voigt do not count retiring judges or those who die of natural causes on the bench

⁷ Vanberg, 1999; Smith (Rogers), 1988; Rogers 2001; Smith (Jinney), 2006; Somin, 2009.

3.1 Measurement

Consistent with past scholarship, we use La Porta et al.'s (2004) measure of *de jure* judicial independence. The indicator contains three *de jure* judicial elements. The variable measures Supreme Court tenure and is scored "0" if tenure is officially less than six years, "1" if terms are more than six years, though less than for life and "2" if terms are lifelong. Second, the variable assesses administrative court tenure. It is scored identically to the Supreme Court portion of the measure. Finally, La Porta et al. (2004) addresses whether decisions from the bench set legal precedent. Countries where judicial decisions add to case law receive a score of "1" whereas countries where decisions do not add to the body of law are scored "0."

Measuring *de facto* separately from *de jure* independence poses more significant obstacles. We use two distinct variables from different, independent sources. The first comes from the Global Competitiveness Report (GCR) from the World Economic Forum (Schwab et al., 2012, 2019). The GCR reports perceptions of the business climate around the world by surveying thousands of investors and risk analysts in 141 countries. We utilize responses from two questions. The first question asks: "Is the judiciary in your country independent from political influences of members of government, citizens, or firms?" The scores fall on a spectrum from one to seven, where a response of "1" indicates no judicial independence/heavy outside influence and "7" reflects complete independence. The second is as follows: "The legal framework in your country for private businesses to settle disputes and challenge the legality of government actions and/or regulations is inefficient and subject to manipulation (=1) or is efficient and follows a clear, neutral process (=7)." The GCR catalogues the responses to its questionnaires and calculates the mean response to each question for each country-year. We calculate an additional mean between the two responses above to generate an indicator measuring mean perceptions of judicial independence to serve as a proxy for judicial behavior or politicians' behavior toward judges. The mean score for the averaged indicator is 3.3 and the standard deviation is 1.4.

The perceptions of investors responding to World Economic Forum surveys reflect respondents and their colleagues' experience with a country's legal system. However, the Global Competitiveness Report's indicator is still a proxy for *de facto* judicial independence because it does not record concrete instances of judges accepting favors in exchange for a politically motivated ruling, stepping down from the bench because of political pressure or other direct evidence of judicial performance. The chief benefit of using the GCR measure is its broad coverage: the GCR has judicial independence data for every country-year in the dataset. A secondary benefit is its level of acceptability in Political Science and Economics: thousands of authors cite the GCR with hundreds using the perceptions of judicial independence variable in top academic journals. The drawback is its indirect evidence of judicial behavior. Venezuelan respondents to the GCR survey may not have had such direct, negative experiences with the judiciary that Venezuela's average score in survey responses should put it in last place for judicial independence worldwide. Yet, Venezuela has a terrible *reputation* among Venezuelan investors and entrepreneurs who respond to the GCR's questionnaire. Perceptual measures like the World Economic Forum's might systematically underestimate judicial independence in cases like Venezuela's, where a judiciary's lack of independence has already been established in the international legal community. Furthermore, the form an ideally independent judiciary would take likely differs from one part of the world to the next. Data from surveys like the Global Competitiveness Report's might offer the ability to compare one country or even one region to itself over time, but not provide a fully reliable, valid benchmark for comparison across countries, regions, or cultures.

To address these concerns, we supplement the Global Competitiveness Report's measure of perceptual independence with Feld and Voigt's (2003) indicator for *de facto* independence. Feld and Voigt (2003, 2006) based on observable outcomes that can be used to infer relative judicial independence or dependence from 1960 to 2003. Their conceptualization of *de facto* judicial independence focuses on the likelihood that judicial rulings are implemented and whether rulings are in the immediate political/economic interests of actors in the executive and legislative branches of government that might implement the decisions. The probability is

highest when judges do not foresee their decisions resulting in punishments such as (a) being removed from office, (b) taking a salary cut, or (c) having their power diluted. Focusing on each country's highest court, Feld and Voigt create a continuous indicator for each country's highest court ranging from "0" (low *de facto* judicial independence) to "1" (high) by taking the mean country scores on the following dimensions: the average length of judicial terms; incomes; number of judges on a court; and the frequency of changes in the legal foundation. The low score is 0.133 (Russia, Bulgaria) and the high score is 0.943 (Switzerland).

The benefit of Feld and Voigt's behavioral measure compared to the Global Competitiveness Report's perceptual measure is the relative objectivity of Feld and Voigt's indicators. In theory, Feld and Voigt's indicators should be reliable no matter who codes the data and estimates a country's score on the *de facto* judicial independence scale. This should allow for reliable, valid comparisons across countries because of data on identical subjects collected in identical ways in each country. Other scholars use the Feld and Voigt data on *de facto* judicial independence regularly, as it has been cited in over 300 academic papers in top journals. However, this data has some drawbacks as well. In particular, the data is cross-sectional and would be very slow to change if collected on an annual basis because each indicator is coded based on the previous four decades' worth of judicial outcomes. The past looms large in areas of independence and credibility, but the relative independence of a judiciary can certainly change over time, which the Feld and Voigt data does not account for well. Furthermore, for our purposes there are limitations to the Feld and Voigt data because data on *de facto* judicial independence are only available for 86 countries. This is considerably fewer than the countries covered by the GCR, which covers 142 countries on an annual basis. The GCR data thus allows for much broader coverage of the 182 countries in our dataset for the time frame over which the rule of law is measured. The GCR data also changes on an annual basis and can account for considerable shifts in judicial independence over time, as occurred in Eastern Europe following democratic transitions in the 1990s. Ultimately, these measures are designed to capture the same concept of *de facto* independence and are likely to do so as they are correlated with one another at 0.85. We use both measures in separate rule of law models below to evaluate connections between *de facto* independence and rule of law scores.

Constitutional Review

Scholarship on separation of powers argues constitutional review is another important institutional provision preventing executives and legislatures from violating the public's rights.⁸ Constitutional review is considered important because legislating and judging are separate actions. Legislatures make laws, but most political systems then require judges for legal enforcement, optimally absent legislative or executive interference.⁹ In this conception, judges possess the power to protect property rights from legislative or executive tampering. Specifically, a constitutional court can constrain executive or legislative attempts to violate investors' rights by checking legislation against a state's constitution.¹⁰ Many scholars also believe strategic legislatures will legislate in constitutional alignment to avoid potential judicial vetoes.¹¹ In these cases, judicial oversight of executive action also prevents executive violation of rights and reassures investors of the law's insulation from concentrated executive or legislative power.¹² Jinney Smith's (2004) survey results highlight American state legislators' respect for state and national Supreme Court rulings. Over one thousand state legislators responding to the survey claimed to carefully consider the constitutionality of legislation in the

⁸ See La Porta et al. 2004 and Persson and Tabellini, 2003.

⁹ See Hayek (1960)

¹⁰ Constraining Parliament's legislative powers is an uncommon reform in countries using the Westminster system. The UK, Ireland and New Zealand are just a few Common Law countries without constitutional review. Instead, constitutional review has its origins in the United States and many newly independent Latin American countries adopted the reform during the early 19th century. Many countries in Western Europe followed suit after WWII, but most countries have yet to adopt this reform.

¹¹ See Vanberg, 1999, Rogers Smith, 2001), Rogers, 1999a, b, and Jinney Smith, 2004.

¹² See La Porta et al., 1997, 2000, 2004 and Djankov et al., 2003.

drafting, debating and implementation of bills to avoid negative court rulings against their legislation.¹³

Constitutional review suggests judges can influence the other government branches and secure the rule of law, but like other aspects of *de jure* judicial independence, we contend constitutional review is only relevant on paper and represents yet another form of institutional cheap talk. The ability to review legislation tells investors nothing about whether judges will act to secure investors' rights against other government entities in practice. We test whether legislatures and executives will protect investors when courts have the power of judicial review by controlling for judicial review in our models. Our indicator for constitutional review comes from Maddex (1995), which records the extent of judicial review in each country. Observations are coded "0" when judges cannot review legal constitutionality, "1" when judges have some powers of review and "2" when judges have full powers to review laws.¹⁴ There is very little overlap between Maddex's (1995) scale of judicial review and La Porta et al.'s (2004) data we use for *de jure* independence: the two variables are correlated at 0.14. This clears the way to include both variables in statistical models of rule of law scores because they measure different aspects of judicial *de jure* powers, but do not present problems with multicollinearity due to their low correlation with one another.

Finally, this model of the rule of law includes several control variables, such as institutional checks and balances and the relative alignment of political preferences of public officials within those institutions, which previous literature identifies as influential for the rule of law (Touchton, 2016; Touchton, 2013). Following previous literature, we also test whether broad institutional differences between countries such as the structure of the executive (president vs. parliament), majoritarian vs proportional electoral rules or federal vs unitary governments are important for the rule of law. Next, we add a measure of the Left-Center-Right ideological orientation of the executive, the government, or the governing coalition to assess whether right-wing governments improve the rule of law.

3.2 Model Specification

The functional form of the Arellano-Bond models used in this study to estimate the relationship between judicial independence and the rule of law is specified as follows;

Model 1:

$$Y1_{it} = f(\alpha y_{i(t-1)}) + \beta^1 De\ Facto\ Ind_{it} + \beta^1 De\ Jure\ Ind_{it} + \beta^1 ConRev_{it} + \beta^1 Polcon_{it} + \beta^1 GDP_{it} + \beta^1 Pres_{it} + \beta^1 PR_{it} + \beta^1 Fed_{it} + \beta^1 Dem_{it} + \beta^1 Ideol_{it} + \beta^1 ELF_{it} + \eta_i + u_{it}$$

Where u_{it} are not serially correlated and;

De Facto Ind = *De Facto Judicial Independence*

De Jure Ind = *De Jure Judicial Independence*

ConRev = Constitutional Review

Polcon = Political Constraints

GDP = GDP per Capita (PPP)

Pres = Presidentialism

PR = Proportional Representation

Fed = Federal System of Government

Dem = Freedom House Scores

Ideol = Ideology of Executive on Left-Right spectrum

ELF = Ethnolinguistic Fractionalization

¹³ Rogers, 2001 joins Rogers, 1999a and b, as well as several Rogers Smith articles (2004, most recently) in describing legislative anticipation of court rulings.

¹⁴ A score of "0" (Israel, Iran) indicates no constitutional review. A score of "1" indicates limited constitutional review of constitutionality of laws (most countries). A "2" indicates full review of constitutionality (The United States). The mean is .57 and the standard deviation is .25.

4. Data Analysis and Interpretation

As discussed in section 3.1 above, we use Arellano-Bond Dynamic Panel models to estimate relationships between judicial independence and the rule of law. This technique is appropriate for unbalanced panels with many units observed over a relatively short timeframe, as in our data. This technique also addresses possible endogeneity through the GMM technique with lags of the independent variables as instruments.

Estimation of Model 1:

Model 1 estimates the relationship between judicial independence and the rule of law using the following functional form:

Table 1: Estimates of Judicial Independence and the Rule of Law, 1996-2019. These models use Arellano-Bond estimation.

Variable	Model 1		Model 2	
	β	σ	β	σ
Instrumental Variable (L1)	0.20	(0.01)	0.23	(0.01)
<i>De Facto</i> Jud. Independence (Perceptual Measure, GCR)	0.31	(0.03)	-	-
<i>De Facto</i> Jud. Independ. (Feld and Voigt)	-	-	1.09	(0.02)
<i>De Jure</i> Jud. Independ.	0.14	(0.11)	0.11	(0.10)
Constitutional Review	0.17	(0.13)	0.20	(0.18)
Political Constraints	1.03	(0.08)	0.92	(0.03)
GDP Per Capita, (PPP) (logged)	0.49	(0.01)	0.60	(0.01)
Presidentialism	0.09	(0.07)	0.12	(0.08)
PR	0.06	(0.05)	0.10	(0.08)
Federalism	-0.12	(0.11)	-0.07	(0.07)
Total Democracy Score	-0.09	(0.02)	-0.05	(0.01)
Right-Left Ideology	0.18	(0.15)	0.12	(0.12)
Ethno-linguistic Fractionalization	-0.37	(0.01)	-0.28	(0.03)
Constant	-1.04	(0.02)	-0.79	(0.01)
Groups	174		86	
Number of Observations	3487		1909	
Mean Observations per Group	13.72		12.9	
Instruments	31		28	
F	264.52		225.71	
Pr > F	0.00		0.00	
Sargan test of overid. Restrictions χ^2	11.54		12.31	
Pr > χ^2	0.48		0.42	
Arellano-Bond test for AR (1), first differences	-2.65		2.79	
Pr > z	0.00		0.00	
Arellano-Bond test for AR (2), first differences	-0.44		-0.37	
Pr > z	0.33		0.36	

Note: Coefficients in Bold are significant at $p < .01$, We use robust standard errors

Model 1:

$$Y_{1it} = f(\alpha y_{i(t-1)}) + \beta^1 De\ Facto\ Ind_{it} + \beta^1 De\ Jure\ Ind_{it} + \beta^1 ConRev_{it} + \beta^1 Polcon_{it} + \beta^1 GDP_{it} + \beta^1 Pres_{it} + \beta^1 PR_{it} + \beta^1 Fed_{it} + \beta^1 Dem_{it} + \beta^1 Ideol_{it} + \beta^1 ELF_{it} + \eta_{it} + u_{it}$$

Model 2 is identical to Model 1 except for a different measure of *de facto* independence.

The results in Table 1 highlight a strong relationship between *de facto* judicial independence and the rule of law.¹⁵ *De facto* independence has a large, positive, statistically significant influence on the rule of law. Moving from mean independence using the GCR indicator (3.3) to one SD above the mean (4.7) with all other covariates constant shifts estimates of the rule of law from a level equivalent to that of Portugal (1.16, 95% Confidence Interval: 0.92, 1.31) to that of Germany (1.66, 95% Confidence Interval: 1.48, 1.83). Estimates using the Feld and Voigt indicator are similar. There are many differences between Portugal and Germany aside from their levels of *de facto* judicial independence, but these estimates illustrate how important perceptions and observations of judicial behavior are for committing to the rule of law in our data, all else equal. In contrast, *de jure* independence is not a statistically significant determinant of the rule of law in any of the models.

We attribute *de facto* independence's influence on the rule of law to its role showing whether checks and balances or separation of powers function in practice. This increases the likelihood the rule of law will remain safe from encroachment because the judiciary exhibits *de facto* behavior constraining the executive or the legislature. *De facto* independent judges might not always have the inclination to protect investors' rights, but there is a greater expectation they will do so compared to subservient judges. The difference between *de facto* independence and constitutional review is also striking. Constitutional review is not statistically significant for the rule of law in our models, suggesting assessments of the rule of law do not stem from *de jure* independence on paper, but *de facto* outcomes in practice.

POLCON, another variable measuring practical, as opposed to formal checks and balances, has a positive relationship with the rule of law. Similarly, a country's wealth, as measured by GDP per Capita (PPP in Constant Year 2000 dollars), positively influences the rule of law. Broad institutional variables and partisan affiliations are still not significant determinants of the rule of law. This provides at least some evidence to support Cheibub's (2007) contention that presidentialism is not the problem for democratic failure- at least since states with high scores for the rule of law are generally likely to maintain their legal systems, their democratic political institutions and avoid sliding into authoritarianism.

Our results demonstrate the ways practical judicial independence supports the rule of law more than *de jure* judicial independence in our data. *De facto* independence impacts investors on a practical level. The power of judicial review does not automatically support contract enforcement and property rights. Instead, truly independent judiciaries are more likely to accomplish these goals. Constitutional review only offers judges the *de jure* opportunity to constrain politicians in the executive and legislative branches. However, politicians often have judges in their pockets in many parts of the world. Investors know judges who are politically or financially beholden to politicians will not exercise their authority to protect the rule of law. This showcases the relevance of regular contact with public officials for assessing the rule of law relative to vague opportunities printed on constitutional parchment at the macro level.

4.1 Robustness Checks

We address possible endogeneity in our data by constructing several distinct rule of law models. We first build on our Arellano-Bond estimates using another GMM model, but one that includes traditional instruments, instead of independent variable lags. We use lifetime tenure of judges to instrument for *de facto* judicial independence. Lifetime tenure offers judges freedom from threats of removal from the bench if they should rule against public officials, the government itself or the government's powerful political allies. Like many other purely institutional variables in our models, it is not statistically connected to the rule of law. Similarly, lifetime tenure is a formal rule that provides the theoretical opportunity, though not always the motive, to behave impartially, protect property rights and enforce contracts. It then serves as a useful instrument for judicial independence because lifetime tenure correlates with *de facto* independence, but only connects with the rule of law through its influence on judicial

¹⁵ Results including a full range of geographic variables are available in longer tables, on request.

behavior.¹⁶ The number of effective parties and lagged global GDP serve as instruments for *POLCON* and a country's GDP per capita (PPP), respectively. We drop the Freedom House measure from the models using instrumental variables because Freedom House's *de facto* measure of democracy is very similar to the rule of law itself. We have found no viable instruments related directly to political liberties and civil rights, but plausibly unrelated to the rule of law.¹⁷ Estimates with a full set of geographic dummy variables are available by request.

Models 3 and 4 have the following functional forms, with the difference being a different indicator for *de facto* judicial independence, as in Table 1.

$$Y1 = f(\alpha y_{i(t-1)}) + \beta^1 De\ Facto\ Ind_{it} + \beta^1 De\ Jure\ Ind_{it} + \beta^1 ConRev_{it} + \beta^1 Polcon_{it} + \beta^1 GDP_{it} + \beta^1 Pres_{it} + \beta^1 PR_{it} + \beta^1 Fed_{it} + \beta^1 Dem_{it} + \beta^1 Ideol_{it} + \beta^1 ELF_{it} + \eta_i + u_{it}$$

Table 2: GMM Estimates of Judicial Independence and the Rule of Law, 1996-2019.

Variable	Model 3		Model 4	
	β	σ	β	σ
<i>De Facto Jud. Independence (Perceptual Measure, GCR)</i>	0.35	(0.02)	-	-
<i>De Facto Jud Independ. (Feld and Voigt)</i>	-	-	1.12	(0.01)
Constitutional Review	0.15	(0.13)	0.17	(0.13)
Political Constraints	0.96	(0.08)	0.79	(0.10)
Change in Global GDP	0.55	(0.01)	0.68	(0.01)
Presidentialism	0.10	(0.10)	0.13	(0.11)
PR	0.14	(0.12)	0.11	(0.08)
Federalism	-0.15	(0.09)	-0.19	(0.13)
Party Orientation	0.11	(0.07)	0.12	(0.11)
Ethnic Fractionalization	-0.36	(0.01)	-0.29	(0.01)
Constant	-0.93	(0.01)	-0.71	(0.01)
Observations	3465		1953	
F	202.6		210.75	
Prob>F	0.000		0.000	
First Stage F	64.51		70.43	
Prob>F	0.000		0.000	
Instruments	3		3	
Cragg-Donald Under ID Test,	179.26		168.36	
P-Value	0.000		0.000	
Hansen's J	2.84		3.47	
P Value	0.360		0.280	

Note: Coefficients in Bold are significant at $p < .01$, using robust standard errors

Table 1 (a) presents results that mirror Table 1. Regression diagnostics suggest we can reject the null hypothesis for weak instruments (we use the Cragg-Donald test, which stems from Stock and Yogo, 2005). We cannot reject the null hypothesis of valid excluded instruments

¹⁶ We drop the *de jure* judicial independence variable from these models because of its high correlation with lifetime tenure. Constitutional review, however, is not correlated with lifetime tenure at a high level and thus remains in the models.

¹⁷ We present a set of Arellano-Bond Dynamic Panel Estimates without the Freedom House variable, which is available on request. The signs and strength of the coefficients on the other variables mirror those in the primary model (Table 2).

(Hansen's J based on Hansen (1982) and Baum et al. (2007). Results in Table 1 (a) thus support the results in Table 1.

We present the results of traditional, 2SLS regression in the appendix (Table 1 (b)). The estimates in Table 1 (b) are also similar to those in Tables 2 and 1 (a) and We can reject the null hypothesis that *de facto* judicial independence, *POLCON* and GDP are exogenous at the 5% level based on the Durbin-Wu-Hausman test. Results using annual cross-sections of the data in Tables 2 (c) and 2 (d) are also very similar to those in tables 2, 2 (a) and 2 (b) and provide evidence a few anomalous years are not driving relationships seen in the models above.

5. Conclusion and Recommendations

The rule of law's importance for investment depends on contract enforcement and the protection of property rights- two areas where the judiciary has considerable authority. The extent to which judges are *de facto* independent within a country reflects the judiciary's ability to fulfill these duties credibly. Our results hold implications for investment and highlight another aspect of why institutional attempts to constrain government through formal separation of powers alone are not credible. The judiciary is *de jure* separate from the executive and the legislature in almost every country and holds institutional vetoes over the other branches of government in many countries. However, formal veto powers alone, such as constitutional review, are not connected to the rule of law in our data. Instead, investors believe the judiciary is more likely to protect the rule of law as it becomes more independent from the other branches of government in a practical sense.

Our results have implications for economic development. Strong legal systems are difficult to establish and offer delayed returns on any institutional investment. However, policymakers should take great care to implement the right kinds of judicial and legal reforms to produce a credible rule of law commitments (North 1981; North and Weingast 1989; Weingast 1997; Touchton 2015a; Touchton 2015b). For example, many legal scholars see constitutional review as a strong constraint on the executive and the legislature. Our analysis does not support this view. Similarly, *de jure* judicial independence through lifetime appointments, legal ability to set precedent or theoretical power to review the actions of other branches of government do not produce credible rule of law commitments alone. Instead, the rule of law will thrive in countries that determine how to ensure judges' decisions are implemented and their power is not diluted or curtailed. This, in turn, will convince investors of the government's policy commitment, promote investment, and generate growth.

The results of estimation hold serious implications for democracy as well. The judiciary as an institution is often removed from the electorate's preferences. Judges in most countries are not elected officials and some judges are appointed for life. This is not an accident: institutional engineers design the judiciary's insulated environment to avoid tyranny of the majority and increase rulings based on studied interpretation of the law rather than on popular sentiment. Many judges are not accountable to the voting public from a democratic perspective and do not face direct public pressure on rulings from the bench or the high probability of recall. However, governments' rule of law commitments are greatest in systems where judges are the most independent and therefore the least beholden to tyrannies of the democratic majority. It is these *undemocratic* judges that can afford to stand up to elected officials who want to nationalize property or violate investors' rights to gain public support. To be sure, accountability is an important benefit accruing to systems with popularly elected judges. However, fears of politicians' preferences to violate private, minority rights in exchange for increased popular support may outweigh the need for electoral accountability among justices. The only way to reassure investors of the law's sanctity in some cases may be to place it beyond the public's reach: in the hands of an independent, undemocratic judiciary.

It is important to note our contention investors are agnostic about how their rights are protected. Investors are not necessarily more supportive of undemocratic governments relative to democratic governments. However, investors do require evidence that public officials will enforce contracts and support property rights impartially. Whether this protection comes from democratic means, such as pluralism among public officials or relatively undemocratic means through *de facto* independent, unaccountable judiciaries is immaterial. Investors simply want as many guarantees as possible that their investments will be protected.

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References

- Alesina, A. and Spear, S. (1988). "An overlapping generations model of electoral competition". *Journal of Public Economics* 37: 359–379 [CrossRef](#)
- Arellano, M., and Bond, S. (1988). *Dynamic Panel Data Estimation Using PPD: A Guide for Users*. Institute for Fiscal Studies.
- Arellano, M., and Bond, S. (1991). Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations. *The Review of Economic Studies*, 58: 277–297. [CrossRef](#)
- Barzel, Y. (1997). *Economic analysis of property rights*. Cambridge University Press
- Baum, C. F., Schaffer, M. E., & Stillman, S. (2007). Enhanced routines for instrumental variables/GMM estimation and testing. *Stata Journal*, 7(4), 465-506.
- Beck, T., Clarke, G., Groff, A., Keefer, P., and Walsh, P. (2001). "New tools and new tests in comparative political economy: The Database of Political Institutions." *The World Bank Economic Review*, VOL. 15, NO. 1, 165-176. The World Bank. [CrossRef](#)
- Brown, D. S., Touchton, M., & Whitford, A. (2011). Political polarization as a constraint on corruption: A cross-national comparison. *World Development*, 39(9), 1516-1529. [CrossRef](#)
- Corte Suprema de Justicia de La Nacion. Argentina. June 4, 2013. Rulings A. 253. XLIX, A. 238. XLIX.
- Djankov, S., La Porta, R., López-de-Silanes, F., and Shleifer, A. (2002) "Courts: The Lex Mundi project," CEPR Discussion Papers 3344, C.E.P.R. Discussion Papers.
- Djankov, S., Glaeser, E., López-de-Silanes, F., and Shleifer, A. (2003). "The New Comparative Economics," CEPR Discussion Papers 3882, C.E.P.R. Discussion Papers.
- Feld, L., and Voigt, S. (2003). "Economic growth and judicial independence: Cross-country evidence using a new set of indicators". *European Journal of Political Economy*, 19 (3): pp. 497–527 [CrossRef](#)
- Feld, L., and Voigt, S. (2006). "Judicial Independence and Economic Growth: Some Proposals Regarding the Judiciary." *Democratic Constitutional Design and Public Policy: Analysis and Evidence*, MIT Press, Cambridge/London: 251-288.
- Friedrich, C. (1968). *Constitutional Government and Democracy: Theory and Practice in Europe and America*. Waltham: Blaisdell Publishing.
- Hansen, L. P. (1982). Large sample properties of generalized method of moments estimators. *Econometrica: Journal of the Econometric Society*, 1029-1054. [CrossRef](#)
- Hayek, F. (1960). *The Constitution of Liberty*. Chicago: The University of Chicago Press.
- Hayo, B, and Voigt, S. (2007). "Explaining *De Facto* Judicial Independence" *International Review of Law and Economics*. Volume 27, Issue 3, September: 269–290 [CrossRef](#)
- Helmke, G. (2012). *Courts under constraints: judges, generals, and presidents in Argentina*. Cambridge University Press.

- Holtz-Eakin, D., Newey, W., & Rosen, H. S. (1988). Estimating vector autoregressions with panel data. *Econometrica: Journal of the Econometric Society*, 1371-1395. [CrossRef](#)
- Kydland, F.E., and Prescott, E. (1977). "Rules rather than discretion: The inconsistency of optimal plans." *The Journal of Political Economy*: 473-491. [CrossRef](#)
- La Porta, R. (2008). "The Economic Consequences of Legal Origins" (with Florencio López-de-Silanes and Andrei Shleifer), *Journal of Economic Literature*, June 2008.
- La Porta, R., López-de-Silanes, F., Pop-Eleches, C., and Shleifer, A. (2004). "Judicial Checks and Balances," *Journal of Political Economy*, 2004. [CrossRef](#)
- La Porta, R., Lopez de Silanes, F., Shleifer, A., and Vishny, R. (2000). "Investor Protection and Corporate Governance." *Journal of Financial Economics* 58, no. 1: 3-28. [CrossRef](#)
- La Porta, R., Lopez de Silanes, F., Shleifer, A., and Vishny, R. (1997). "Legal Determinants of External Finance." *Journal of Finance* 52, no. 3: 1131-50. [CrossRef](#)
- Landes, W., and Posner, R. (1975). "The Independent Judiciary as an Interest Group Perspective." *Journal of Law and Economics* 18, no. 3: 875-902. [CrossRef](#)
- Levitsky, S., & Way, L. (2002). The rise of competitive authoritarianism. *Journal of democracy*, 13(2), 51-65. [CrossRef](#)
- Maddex, R. (1995) *Constitutions of the World*. Washington: Congressional Quarterly.
- Merryman, J. (1969). *The Civil Law Tradition*. Stanford: Stanford University Press.
- North, D., and Weingast, B. (1989). "Constitutions and Commitment: Evolution of the Institutions of Public Choice in 17th Century England." *Journal of Economic History* 49, no. 1: 803-32. [CrossRef](#)
- Persson, T., and Tabellini, G. (2003). *The Economic Effects of Constitutions*. Cambridge: MIT Press. [CrossRef](#)
- Ríos-Figueroa, J., and Staton, J. (2012). "An Evaluation of Cross-National Measures of Judicial Independence." *Journal of Law, Economics, and Organization*. [CrossRef](#)
- Rogers, J. (2001). "Information and judicial review: A signaling game of legislative-judicial interaction" *The American Journal of Political Science*, Vol. 45, No. 1: pp. 84-99 [CrossRef](#)
- Rogers, J. (1999). "Legislative Incentives and Two-Tiered Judicial Review: A Game Theoretic Reading of *Carolene Products* Footnote Four" *American Journal of Political Science*. 43:1096-1121. [CrossRef](#)
- Rogers, J. (1999). "Judicial Review Standards in Unicameral Legislative Systems: A Positive Theoretic and Historical Analysis" *Creighton Law Review* 33:65-120.
- Roodman, D. (2013). "Xtabond2: Stata module to extend xtabond dynamic panel data estimator". *Statistical Software Components*.
- Roodman, D. (2009). A note on the theme of too many instruments*. *Oxford Bulletin of Economics and Statistics*, 71(1), 135-158. [CrossRef](#)
- Schwab, K., Sala-i-Martin, X., and Greenhill, R. (2011) "The Global Competitiveness Report 2011-2012."
- Smith, J. (2006). *The Supreme Court and National Policy-Making: Influence through Anticipatory Compliance by State Legislatures*. Doctoral Dissertation, Northwestern University. [CrossRef](#)
- Smith, R. (1988). "Political Jurisprudence, the 'New Institutionalism,' and the Future of Public Law," *American Political Science Review* 82: 89-108.
- Somin, I. (2012) "Taking Property Rights Seriously? The Supreme Court and the "Poor Relation" of Constitutional Law". in *The United States Supreme Court: Contested Constitutional Doctrines*. Steven Kautz, Arthur Melzer and Jerry Weinberger. Eds. University of Pennsylvania Press.
- Stock, J., & Yogo, M. (2005). *Asymptotic distributions of instrumental variables statistics with many instruments* (Vol. 6). Chapter. [CrossRef](#)
- Touchton, M. (2013). Dangers of diversity: Ethnic fractionalization and the rule of law. *Economics, Management, and Financial Markets*, 1, 20-40.
- Touchton, M. (2015a). Trapping the tigers: Regulation of market entry and the rule of law in SE Asia. *The Social Science Journal*, 52(1), 8-21. [CrossRef](#)

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- Touchton, M. (2015b). Who commits to the rule of law? Constrained government and foreign direct investment in postcommunist states. *East European Politics*, 31(4), 468-486. [CrossRef](#)
- Touchton, M. (2016). The benefits of balance: credibility, the rule of law, and investment in Latin America. *Latin American Research Review*, 195-216. [CrossRef](#)
- Tsebelis, G. (2002). *Veto Players*. Princeton, N.J.: Princeton University Press. [CrossRef](#)
- Vanberg, G. (1999). *The Politics of Constitutional Review: Constitutional Court and Parliament in Germany*. Unpublished dissertation: University of Rochester.