Justice delayed, growth denied: Evidence from a comparative perspective*

Alessandro Melcarne[1] and Giovanni B. Ramello[1]

[1]DiGSPES, Università del Piemonte Orientale

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Abstract

Institutions play a fundamental role in economic development. However, even the most well-designed regulatory environment might turn out to be (at best) ineffective if not properly enforced. Accordingly, a rapid and well-functioning law enforcement system is generally a top priority in politicians' agenda around the world. The need of an effective justice sector is not only related to the necessity of keeping civil litigation under control (and thus help preserve social cohesion), but is equally essential for economic growth. Previous literature has unveiled the link between economic activity and courts' delay in solving cases: the time needed to dispose a private lawsuit increases uncertainty among economic actors, thus hindering transactions on markets. The present works tries to contribute to the extant debate on this topic, by considering the further nexus between judicial delay and economics growth. By exploiting a cross-section dataset of 175 countries from all over the world, our work reaches two conclusions: (a) judicial delay turns out to be a relevant and significant determinant of growth, as every extra year needed to dispose (on average) private litigation lowers growth rate by over 1%; (b) differently from a substantial stream of literature supporting the idea that common law systems are better equipped to foster economic development, we find no significant difference when moving from the regulatory environment to its actual enforcing mechanisms.

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*VERY PRELIMINARY AND INCOMPLETE DRAFT

1 Extended Abstract

In the aftermath of the 2008 financial crisis, governments all around the world are struggling to achieve economic growth. Although everybody is looking for the solution to foster growth, no "magical" recipe has yet been supplied. Within this broader debate, one tenet seems to be generally accepted by economists belonging to different schools of thought: enforcing property rights is one of the most important factors affecting economic growth (Voigt and Gutmann, 2013).

The need to improve economic development *via* the security of property rights is coupled to another pressing policy debate that is at the same time spreading world wide. Both international organizations (as for example the World Bank or the European Union) and many national governments have put at the center of their political agenda the need to reform judicial systems in an efficiency-oriented direction. This is true both for developed countries (not at all immune from the symptoms of poor-functioning court-systems) and developing ones, where improvements of the judiciary are complementary to the reforms of the "law in the books".

The link between these two aspects is stronger than one would imagine. This is due to the fact that the protection of property rights ultimately relies on a well-functioning judiciary. Even the most efficiently designed rule will be ineffective if not properly enforced. Institutional arrangements are needed in order to protect property rights (North, 1981). An established literature has shown how the protection of returns on investments encourages people to invest in physical capital, thus ultimately enhancing growth (Djankov et al., 2003a; Glaeser et al., 2004). Previous literature has mainly focussed on the "substantial" side of regulatory regimes, highlighting how common law systems (*i.e.*, the ones characterized by judge-made law) are more suitable for fostering growth with respect to civil law ones (where law-

making is mainly done by legislative bodies) (La Porta et al., 1998).

However, institutions need to be not only designed properly, but also to be credible. In this respect the mere promise of respecting property rights is not sufficient to foster growth. As we have claimed earlier, the promise to make property rights certain needs to be enforced. This is where the role of the judiciary becomes crucial.

Judicial systems have worldwide the task of enforcing the law, thus making institutional regulatory regimes effective. This interplay has been showed to enhance growth, since "well-functioning" court systems ease the establishment of new commercial relations, thus lowering barriers to enter in markets and making the latter more dynamic (Johnson et al., 2002; Chemin, 2009, 2012; Ippoliti et al., 2015).

But when does the judiciary function well? This question is harshly debated among scholars on different sides. Lawyers tend to focus more on the "qualitative" aspects concerning the way justice is delivered. On the other side, economists give more emphasis on "quantitative" connotations of justice, as the only ones that can be measured. Within the latter, several options can be pursued. Previous works have stressed the importance of a judiciary independent from political pressures in order to make the promise of property rights' protection credible (Feld and Voigt, 2003). In the present work, we follow a different path, emphasizing the importance of courts' effectiveness, using judicial delay (*i.e.*, the time needed to dispose a case) as a proxy, which has already been adopted in literature (Djankov et al., 2003b).

The judiciary is the main instrument for economic actors to solve their disputes. In this respect, a fast dispute-resolution system has the merits of reducing uncertainty related to economic transactions. Individuals might take advantages of institutional imperfection and act opportunistically, exploiting the incapacity of the judicial system to enforce contractual obliga-

tions (Williamson, 1985). A faster judiciary helps making the protection of property rights more credible.

Using delay as a proxy of the quality of property rights' protection has a clear advantage in identification terms, since it is indeed a fairly objective and stable (over time) measure. Because of the "ossification" of legal and judicial systems, changes in the performance of the judiciary are the outcome of legislative reforms or changes in the litigation habits of citizens; both factors that are not volatile in the short run and not sensitive to immediate changes in socio-economic factors.

However, if on the one side the objective nature of judicial delay has some advantages, on a more theoretical level it equally poses a problem. Delay does not capture the "qualitative" dimension of the judiciary's work. Accordingly, a potential criticism towards our claim is that a fast judiciary (with a low delay) would not necessarily determine the protection of property rights. In fact, a well-performing judiciary could even hide systematic violations of the *Rule of Law*. A similar way of thinking is not mundane, since one might claim, following the lawyers' perspective, that a deeper protection of rights could bound the judiciary to a greater extend slowing its action and thus hindering property rights' protection.

This potential issue might be dealt in two ways: theoretically and empirically. On a theoretical level, one might refer to the very etymological origin of the word "justice", which comes from the latin *ius dicere*, literally, "state the law": something done by the judiciary by solving cases. This implies that the delivery of justice itself (in this connotation) ought to be beneficial in lowering uncertainty for economic actors (Ippoliti et al., 2015). In this perspective the existence of a fair procedure guiding judges is not really of interest. Corruption and bribes could work equivalently as institutions favoring the disposition of lawsuits. What really matters here is that "jus-

tice is made", and we should perhaps add, *rapidly*. From this point of view, only one assumption needs to be formulated in order to make our theoretical claim consistent: even if not "fair" (according to democratized countries' standards), justice needs to be consistent and thus predictable. For example, one might imagine a country where judges are consistently biased in favor of a certain share of population (does not matter if for religious, political or ethnic reasons). Our claim is that, despite this being deplorable, if the enforcement is effective, property rights will be enhanced (even if in a biased way) and growth fostered. Accordingly we do not enter directly in the debate on whether institutions cause growth (Acemoglu et al., 2001; Glaeser et al., 2004), but we just try to isolate how differences in the "quality" of a specific institution (in this case the effectiveness of the judiciary measured in form of delay) can explain differences in economic performance.

2 Empirical Analysis

The empirical analysis devoted to shed light on the relation between judicial delay and economic growth exploits a panel dataset containing information on 175 countries in the 2004-2015 period. We extract our judicial delay variable (JD) from the "Enforcing Contract - time" measure estimated by the World Bank's *Doing Business* Project. This measure expresses the average time needed to dispose a civil dispute and has the undeniable merit of being the only instrument available to scholar that accounts for an homogenous judicial delay measure of so many countries all around the world. In order to exploit the panel structure of our data, we employ both year and country fixed effects in our base line model:

$$growth_{i,t} = \beta JD_{i,t} + \mathbf{X}'_{i,t}\theta + \alpha_t + \gamma_i + u_{i,t} \tag{1}$$

with **X** being a vector of control variables. However we also want to address in our empirical analysis the trade-off between quality and quantity of justice, dealt previously on a theoretical ground. Given the impossibility of measuring the quality of justice, we rely on its complementarity with democracy, assuming that one cannot stand without the other. Accordingly, we include a control for the democratic nature of regimes: the combined indicator of democracy estimated by the PolityIV project. Other controls include the total amount of investments, general government revenue, yearly change in population, gdp per capita and growth rate in the previous year (all extracted from the IMF World Economic Outlook), and the number of procedural hurdles with related costs from the Doing Business dataset. In Table 1 are reported descriptive statistics of all adopted variables.

Table 1: Descriptive Statistics

Variable	**Mean**	**Std. Dev.**	**Min.**	**Max.**	**N**
growth	3.979	5.336	-62.076	104.483	2231
JD	1.727	0.856	0.329	4.932	2235
invest	24.415	9.124	-29.488	81.94	2080
govrev	30.633	13.113	2.237	160.191	2231
Δ pop	0.015	0.02	-0.186	0.349	2218
gdp_{t-1}	12110.127	17987.567	108.979	113611.891	2218
costs	34.841	25.869	0.1	163.2	2235
proc	38.274	6.469	21	55	2235
polityIV	4.041	6.207	-10	10	1932

3 Discussion

Table 2 reports the estimates of our econometric analysis. In all regressions, observations characterized by a gdp growth rate either smaller than -10% or greater than 20% were dropped. At a first glance, significance and sign of the JD coefficient seem to be in line with our theoretical predictions. In particular columns (1) and (2) report estimates of our baseline model: JD

Table 2: Regression Results

	(1) full sample	(2) full sample	(3) only common law	(4) no common law	(5) no outliers	(6) only Δdelay$\neq 0$	(7) full sample	(8) full sample
JD	-1.236**	-1.227***	-1.767*	-1.158**	-1.221***	-1.238***	-1.119**	-1.387*
	(0.505)	(0.462)	(0.935)	(0.531)	(0.462)	(0.449)	(0.521)	(0.793)
JD*commonlaw							-0.499	
							(1.104)	
polityIV								0.0416
								(0.0400)
invest	0.102***	0.0907***	0.142***	0.0818***	0.0905***	0.0888***	0.0910***	0.127***
	(0.0135)	(0.0125)	(0.0327)	(0.0137)	(0.0126)	(0.0179)	(0.0125)	(0.0226)
govrev	0.00811	-0.00759	0.0679	-0.0121	-0.00566	-0.0187	-0.00769	0.131***
	(0.0146)	(0.0135)	(0.0490)	(0.0142)	(0.0137)	(0.0165)	(0.0135)	(0.0293)
Δpop	4.545	4.981	-29.15	5.875	4.889	-2.600	4.969	13.77**
	(4.551)	(4.169)	(29.19)	(4.280)	(4.167)	(6.640)	(4.170)	(6.978)
gdp_{t-1}	-0.000199***	-0.000115***	-7.53e-05**	-0.000125***	-0.000113***	-0.000110***	-0.000114***	-0.000170***
	(1.60e-05)	(1.69e-05)	(3.64e-05)	(1.92e-05)	(1.69e-05)	(2.49e-05)	(1.69e-05)	(2.95e-05)
$growth_{t-1}$	0.143***	0.147***	0.166***	0.146***	0.152***	0.212***	0.147***	-0.112***
	(0.0180)	(0.0181)	(0.0460)	(0.0198)	(0.0185)	(0.0273)	(0.0181)	(0.0236)
costs	-0.00302	-0.0115	-0.0137	-0.0113	-0.0114	-0.0181	-0.0111	0.0111
	(0.0113)	(0.0104)	(0.0170)	(0.0129)	(0.0104)	(0.0136)	(0.0104)	(0.0163)
complex	0.362***	0.218*	-0.0171	0.221*	0.217*	0.196	0.213*	0.107
	(0.123)	(0.117)	(0.378)	(0.125)	(0.117)	(0.136)	(0.117)	(0.198)
Country FE	YES	YES	YES	YES	YES	YES	YES	YES
Year FE	NO	YES	YES	YES	YES	YES	YES	YES
R-squared	0.167	0.310	0.356	0.309	0.310	0.393	0.310	0.182
Observations	2,050	2,050	379	1,671	2,040	1,066	2,050	1850
Number of Countries	175	175	32	143	173	90	175	155

Dependent Variable: yearly gdp growth rate. Standard errors in parentheses;*** p<0.01, ** p<0.05, * p<0.1

turns out to be negatively and significantly linked with gdp growth rates. However, in order to test the robustness of our results we estimated our model by separating countries with a common law tradition (column (3)) from the rest (column (4)). Results do not change substantially. As mentioned above, previous literature (La Porta et al., 1998) has purported the superiority of common law systems in guaranteeing the protection of property rights and fostering growth. In order to check this claim we introduced in column (7) an interaction term between our JD variable and a dummy accounting for the fact that a country is characterized by a common law legal system. This interaction turns out to be insignificant, suggesting that the "legal origin" claim might not be equally translated to the enforcing mechanisms characterizing legal systems. In column (5) we dropped from our estimation the observations regarding Libya and South Sudan, since affected in the considered timespan by civil wars. In column (6) we exclude from our estimation, all countries that have not experienced a change over time in their judicial delay, while in column (8) we also control for the democratic nature of regimes.

4 Robustness Checks

A few words are necessary in order to discuss the results and supply some robustness checks. One major concern with this kind of studies has to do with endogeneity biasing the estimates. First, there could be a problem of simultaneity: causality could run backwards. What we wish to show is the negative impact of judicial delay on economic growth. However, *ex ante* it cannot be excluded that economic growth has itself an impact on judicial delay. If this is true, it is necessary to discuss how this reverse causality could affect our estimates. Strictly speaking, we cannot exclude that, if simultaneity exists, the impact of growth on judicial delay is necessarily

negative, thus creating econometric issues. Previous literature has shown that litigation rates increase with societies' well-being (Eisenberg et al., 2012). Even if we allow for individuals to adjust their litigation habits in the short run depending on wealth, it is highly unlikely that the judicial system's productivity will be able to react instantly to an increase in the demand of justice. In the short run, greater litigation reaching courts ought to increase the workload of the judiciary, thus "engulfing" its functioning. One should then expect that *ceteris paribus* delays should increase. Consequently, if simultaneity exists through this channel, we may conclude that it is not detrimental for our purposes: since we estimate a negative impact of judicial delay on growth, the positive causal reverse effect ought to imply that, if not truly respecting reality, are results are underestimating the "real" causal effect. However, we cannot exclude that the reverse causal effect has a negative sign, thus potentially creating a problem. If this is true, one potential channel could be the following: growth could enhance social capital rather than just material well-being(Glaeser et al., 2004). However, one might conjecture that better educated people ought to be less incline to litigate, thus ultimately alleviating the burden of courts (*i.e.*, smaller delay). However, social capital needs time to accumulate and, accordingly, we might be confident that once accounting for country fixed effects, long run historical factors linking social capital to economic performance should be controlled (Acemoglu et al., 2008; Assiotis and Sylwester, 2015). However, economic growth could have a negative impact on delays also through a different channel. In fact it could be that economic growth determines greater resources available to governments to be allocated to the public sector in form of investments. Accordingly, reforms of the judiciary could determine a boost in productivity, thus decreasing delays. In order to deal with this problem we have estimated our baseline model directly controlling for the

Table 3: Regression Results

	(1)
JD	-1.298***
	(0.471)
invest	0.0910***
	(0.0125)
govrev	-0.00732
	(0.0135)
Δpop	5.062
	(4.171)
gdp_{t-1}	-0.000114***
	(1.69e-05)
$growth_{t-1}$	0.147***
	(0.0181)
costs	-0.0118
	(0.0104)
proc	0.199*
	(0.119)
reform	-0.198
	(0.261)
Observations	2,050
Number of id_country	175
R-squared	0.310

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

possibility that in a given year t, country i invested resources in the judiciary in order to increase its productivity: either by hiring more judges or supplying more endowments. Results are shown in Table 3.

Despite the aforementioned argumentation, one might still argue that an endogeneity problem remains. In order to tackle this issue we employed a dynamic panel model: specifically the system-GMM estimation methodology of Arellano and Bover (1995). Results are available in Table 4 .

Table 4: Regression Results

	(1)
growth_{t-1}	0.133***
	(0.0258)
JD	-1.874*
	(1.071)
invest	0.129***
	(0.0239)
govrev	0.0637**
	(0.0297)
Δpop	4.481
	(5.867)
gdp_{t-1}	-0.000468***
	(3.28e-05)
costs	0.0415**
	(0.0192)
proc	-0.0109
	(0.254)
polityIV	0.0177
	(0.0454)
Constant	6.383
	(9.361)
Observations	1,520
Number of id_country	155

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

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