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How Democracy could foster Economic Growth: The Last 200 Years

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In this paper we explore current understandings of the influence of political rights, among historical legacies, on economic development. We construct variables for selected political regimes for 1811-2010. We find significant association between individual rights and economic growth. We argue that current understanding of political regimes supportive of growth (Acemoglu, etc), should parse the concept of property rights to include the protection of the individual in their focus on private property rights protection, alone, respected in various forms of government, are insufficient; what matters is the security of individuals from arbitrary arrest, regardless of "type of regime". Discretionary rights of rulers or democratic governments to arrest citizens undermines the protection of private property rights and other attributes classically given to democratic foundations of economic growth, for example, free press, freedom of the exercise of religious belief. We suggest, as a research agenda, that the power of the politically competitive system therefore comes from weakening discretionary authority over law enforcement

Keywords: Rule of Law, Rule of Force, Personal Rights, Private Property Protection, Economic Growth

JEL classification indices: P16, P50, N40, O40

INTRODUCTION

This paper emerges from the understanding, found in philosophy, that the political foundation of private property rights, a legacy useful for long run economic growth, lies in institutions that enforce guarantees against arbitrary arrest and imprisonment. The remaining core of the Lockian definition of individual rights—including freedom of speech and freedom of assembly—along with security of property rights, emerge essentially from this stand-alone institutional segment.

Safeguards against arbitrary arrest and capture are associated with the modern institution of private property. Such safeguards constitute an integral element of the right of ownership. When safeguards are relaxed, private property rights loses its force as a foundation for economic growth. The threat of arbitrary deprivation of personal freedoms is, in this sense, an instrument for confiscating property. Deprivation of personal freedom can occur for non-payment of taxes. Such political threats to property by means of arrest of a person were common in some periods of history. Under some rulers, however, for example, Charles I of

England and Philip II of Spain and the Netherlands) there was violent resistance by property owners against practices of this sort.

Personal violence as a threat to assets (Hirshleifer, 2001) makes personal security an element of the business climate as is well known. The growth spurts which authoritarian countries have historically achieved proved to be unsustainable (Przeworski et al, 2000). It was widely accepted that Rule of Law (RoL) regimes which provide personal immunity and property guarantees for all economic agents consistently outperform every competing form of regime in the long run, and the introduction of such guarantees can prove an accelerant for growth in less developed countries.

To date history has provided no basis to suggest that any favorable "starting conditions", "initial capital", or "impulse", have been capable of securing long term economic growth (average rates of 1.5 – 2% or more per capita GDP growth) over a period of centuries[1]. Our inquiry can therefore be largely reduced to the question of which laws are to be regarded as reasonable, and what package of such laws might be said to constitute a satisfactory, or at least minimal, prerequisite for growth.

Is it the case that the institutions of RoL democracies and the notions of personal liberty are just luxuries that only the rich and developed countries can afford?

THE QUESTION OF DEPENDENCE AND CAUSALITY

The choice and elaboration of the essential set of institutions required for the support of long-term economic growth, as described by Adam Smith, is still among the most enduring and fundamental problems of the science of Economics. Mancur Olson pointed to freedom as a key precondition for economic growth, in as much as it tends to provide long-term transaction guarantees against even stationary bandits. Conversely, a number of researchers, for example W.Wo and O.Davis, have claimed that the existence of a causal relationship between economic freedom and growth is unclear. This paper attempts to provide the requisite research and discussion that are needed in order to definitively conclude this discussion.

Douglas North et al. (North, Wallis, Weingast, 2009) tried to define institutional conditions for long run economic growth. Their book ("Violence and Social orders") however, leaves the reader without clear description of institutional machinery for the private

[1] 1.5% over a period of 180 years would have been sufficient to transform a country, not affluent even by the standards of the late 18th century (such as China with a per-capita GDP of 600 USD in 1990), into a country of a medium level of development (like the Czech Republic or Argentina). At a rate of 2%, however, it would have taken 200 years for an extremely backward African country with a per-capita GDP of 400 USD in the early 19th century to become a highly developed one, with a per-capita GDP exceeding that of France, Finland and Belgium in 2000.

property protection under the "Open Access orders". The book does not contain clear and explicitly stated criteria of successful transition to “Open Access orders” although the Walpole vs. Bolingbroke contest description (p. 203) could deliver us at least the formal test of "opposition leaders' personal safety".

Robert Barro (1999) stressed the issue of the Rule of Law by forming the Rule of Law Index which is based on ratings and expert opinion (1999, 2). Barro based his analysis on Lipset’s (1994) vision of the origins of Democracy. Lipset hypothesized that Democracy is caused and supported by sustainable economic development, political and cultural maturity.

Later, K. Okui (2005) demonstrated the absence of a statistical connection and indicated the interdependence of political and economic rights. The same view is shared by Wo (2005), whose conclusions are based on his own methodology for analyzing and testing mutual influence and causality. It should be noted that the absence of a statistical connection may be explained by the existence of complex cause-and-effect relationships between institutions and economic growth.

Paldam and Gundlach (2008) trace two approaches to the work of two laureates of the prize memorializing Nobel: North and Kuznets[2]. Advanced economic analysis techniques look excessive being based on the experts' subjective evaluations data. The ratings statistical data are extremely vulnerable to criticism itself. So, the most convincing argument, then, seems to be furnished by a qualitative analysis, rather than an economic one[3].

It is vital to note that the relative importance and direction of causality may vary from one society to another due to different levels of development. According to a number of researchers, the demand for institutions typical to those of rule-of-law democracies tend to

[2] The first of these is referred to as the Grand Transition (GT), and the second as the Primacy of Institutions (PoT). The authors provide a survey of works in economics, including their own writings, in which attempts have been undertaken to make evident and to explain the causal connection between democracy and growth.

[3] Two sets of countries are listed, with one, according to the authors’ view, providing evidence in favor of GT, and the other of PoT. In the first (“twins with different economic systems”), the authors compare countries with similar starting economic, historical, and cultural givens, whose development histories, beginning at some specific point, go their separate ways. The ones got more or less decent safeguards for private property and a market economy. The other countries had socialist experiments foisted on them. After decades, or even generations elapse, the gap between their levels of economic development turns out to be impressive. In the authors’ view, the pair Thailand – Burma does not fit into the set. We believe that the authors have exaggerated the influence of English institutions upon Burma’s society and state. The limited nature of this influence becomes evident if we compare this country with India. In India, the English have been constructing their institutions at least beginning as far back as the Sepoy Mutiny of 1857 (from court system and free press, to local legislative assembly – see Government of India Act, 1919; Government of India Act, 1935 http://www.legislation.gov.uk/ukpga/1935/2/pdfs/ukpga_19350002_en.pdf). The second set introduces countries which attained a high level of economic development between 1950 and 2000. However, this set appears to be providing a non-symmetrical argument vis-à-vis the “pair of twins.” Singapore reached a high level of development in the presence of sound English institutions, which it began rapidly to dismantle (1989, something not reflected by the Polity Score). By contrast, society in most countries in the set had considerable democratic experience before reaching a high level of economic development (Austria, Greece, Ireland, Israel, Italy, Portugal, and Spain). Only two instances are available which demonstrate in an unambiguous way the attainment first of riches, and only then, of democracy: Korea and Taiwan.

take root among a significant percentage of the population only after a sufficiently high level of per-capita GDP has been achieved (Mau - Starodubrovskaia 2001).

As noted above, Olson (2000), who was convinced that the direction of causality is from democracy to economic growth, described one of the causes of this phenomenon. Long-term and complex transactions are sensitive to risk, institutional peculiarities, etc., and it is therefore essential that property rights be protected by ironclad guarantees which can only be ensured in a Rule of Law democracy. It follows, therefore, that persons who have achieved a certain level of economic success cannot continue to expand their success when confronted by hampering institutional limitations.

In a book rapidly become famous and oft quoted Acemoglu and Robinson (2012) unfurl a panoramic view of historical instances of economic fiasco and – more rarely – success. The authors connect these, respectively, with the dominance of institutions friendly ("inclusive") and inimical ("extracting") vis-à-vis the market and private initiative in the country. The key finding: history is essential for understanding institutions, while institutions – primarily, private property – play a key role in explaining success, flourishing, and failure and poverty in different nations and countries.

As one of the key institutions, the authors also include "political" ones, arguing that "pluralistic political institutions" are an integral part of the construct which ensures conditions favorable to economic growth.

We share all these views and provisions. However, the influence mechanism of the institutions described upon market agents' motivation remains unclear.

Effective political institutions used to guarantee the rights to life and inviolability of the individual person in the most general sense of the word. This provided for the situation in which, according to Adam Smith, "the rights of the meanest British subject respectable to the greatest… by securing to every man the fruits of his own industry, gives the greatest and most effectual encouragement to every sort of industry." This means personal motivation directed toward making maximum use of one's abilities so as, by means of entrepreneurship, self-employment, or hired labor to maximize the fruits of one's efforts for the benefit of oneself and one's kin

The authors frequently cite examples illustrating our approach (murder of an inventor by the Emperor Tiberius, p. 171). Their comment concerns a series of significant moments in this story. Thus, they note that "extractive institutions" create the situation in which the citizen does not think of making independent use of his invention in his own business. But if the ruler generally has the license to kill citizens arbitrarily, a citizen's only chance of

profiting from his "industry and inventiveness" is to rely on the authorities' grace and generosity.[4]

We believe that decentralization of power and political competition are economically productive because they limit the arbitrary highhandedness of the authorities. Appropriate institutions thereby protect property owners from arbitrary repression. That is, a key advantage of decentralized power as compared to the authoritarian or despotic kind of rule consists in better protection afforded for property rights.

The authors note shortcomings in property guarantees in China. This country is one they aptly call an example of growth despite operating extracting institutions. Yet the mechanism of this growth as they conceive of it also remains unclear.

Understanding the significance of protection for the individual person of the property owner, including protection from the authorities, can also explain Chinese successes beginning in the 1980s. (See "The Level of Protection of Human Life and Freedom" below).

Views to the effect that "You Can't Engineer Prosperity" (p. 446), or that "there is no recipe for building such institutions" (p. 460) give grounds for support (indeed, the set of institutions providing protection for the individual person never matured quickly as per somebody's order). Even so, they are vulnerable to criticism.

Thus, it is difficult to chalk US successes entirely to the Anglo-Saxon legal tradition, ignoring legal constructions by the Founding Fathers. The steps the Founding Fathers took were inscribed within the traditional framework noted. These steps themselves, including respect shown for the Constitution by George Washington, the first military leader and President (mentioned by the authors in passing on p. 36), had a significance of their own (Jones 2013, the "highly visible actor" concept[5]). But the formal institutions constructed by the Founding Fathers also proved thoroughly effective.

At the individual level, a more obvious rationale that leads to the demand for such institutions is the necessity to protect the level of wealth and the accumulated resources that have already been attained; the more numerous the people with high incomes and substantial property, the higher the demand for such institutions[6] of protection. For example, the driving power behind, and indeed the leaders of, the English and American Revolutions were

[4] See the institution of invention in the USSR, as per which the inventor would be granted certain modest but appreciable goods independent of the significance of the invention, relinquishing this last for the benefit of the state to dispose of as its property. The competition of communist rulers against foreign challengers normally forced the authorities to be more tolerant toward scientists and inventors than Tiberius was in the example described.

[5] Jones considers the law-abiding actor pattern as public social capital.

[6] Thus, the stipulations of the Coase theorem concerning the presence of well-established property rights and zero transaction costs are predicated on the existence of a strong rule-of-law State (or the necessity of its presence for achieving the optimum, outside the dependence on the initial distribution, which already exists under ***rule-of-law democracy***).

landowners. Likewise it was an awareness of these issues that motivated the Finnish elite to redistribute portions of their estates in favor of the exiles from the Karelian Isthmus[7] in order to prevent their de-socialization and political marginalization. Also, many politicians viewed the growth of a class of property owners favorably, seeing them as natural supporters of the irreversibility of market and democratic reforms.

In *Institutions and the Impact of Investment on Growth*, Gwartney et al. (2005) substantiate the existence of an influence exerted by qualitatively assessed institutions (measured by the Economic Freedom of the World Index – EFW) on economic growth by means of investments which are predominantly private. In their work they apply the EFW to data on economic growth during the period 1980-2000.

Shleifer and his colleagues examined "political institutions" such as freedom of speech (Djankov - Shleifer 2003). Their findings regarding the impact of institutions on economic growth (Glaeser - Shleifer et al, 2004) supported Lipset's hypothesis about the direction of causality.

What distinguishes rule-of-law states from rule-of-force ones appears to us to be much more significant than the difference between common law and civil law legal families. This distinction appears to us irrelevant to most countries in which the authority of the judges is subordinate to the executive branch of government, while legal procedure itself serves a merely decorative function[8].

In our paper we develop a set of very simple logical variables[9] to assess the quality of political institutions (see *Table 1* below). We classify a country as a Rule of Law Democracy if and only if all three of the following conditions are met: the government steps out and let the opposition assume the office if losing an election[10]

The government may lose a widely publicized and politically significant case in the Court, and will comply with this decision

The Opposition mass media criticizes the Government harshly, and calls for its replacement without revenge or punishment.

Thus basic individual rights[11] and freedoms are secured and perpetuated as routine practices. For instance: USA, England after 1832, the Third Republic in France prior to 1940, etc.

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[7] Solsten, Meditz, 1988

[8] La Porta, Lopez-de-Silanes, Shleifer, Vishny, 1998.

[9] It is our view that any legal norm or law-enforcement practice can be described by means of a finite number of variables, even though creating this description might require considerable time and effort.

[10] Przeworski's (contested) Democracy criteria (Przeworski et al. 2000: 17). We used the weaker version of the criteria – one time power rotation was registered for all regime duration: for ex. Japan got "1" since 1946, while very first power rotation happened in 1990, the 2-nd in 2009.

[11] ***See definition Yanovskiy, Shulgin, …*** Formal definitions of "Free elections", "Opposition Media", "Rule of Force" etc can be found in the report by the Jerusalem Institute for Market Studies

And we classify a country as a "Limited Government" (LG) if any of above listed are "True". Our indicators to a significant extent reflect the condition of a society, and not only of the state[12].

An analysis of the recent history of post-socialist countries, together with comparative institutional analyses covering a lengthy period of economic history (the last century) shows the crucial importance of the independence of the courts and the media. They proved to be a more significant factor than taxation and business regulation. This conclusion was initially arrived at on the basis of a comparative and statistical analysis of institutions in post-communist countries during the 1990s (Mau – Yanovskiy - Zhavoronkov et al. 2003).

These studies have caused us to recognize certain institutions as fundamental and to therefore focus on them in our analysis. We have ascertained that fundamental institutions are those that protect the right to life by limiting the risk of death at the hands of "roving" or "stationary" bandits. These institutions provide personal immunity, including for citizens with non-traditional beliefs who are critical of the authorities or the prevalent religion.

According to the extent to which these rights are guaranteed, it is possible to categorize all countries as either Rule of Law (RoL) countries, or Rule of Force (RoF) countries where discretionary regulation prevails. It is also possible to consider countries in transition as a distinct and separate category.

This paper aims to demonstrate the importance of those institutions that ensure physical safety and personal immunity by pointing out that, in the absence of these institutions, guarantees of universally recognized private property rights either cease to exist or are rendered meaningless. A person kept in detention and/or threatened with death will, as a rule, agree to surrender any property rights he may have. Our research is predicated upon an important assumption as to the lexicographical character of demand (or preference) for life and freedom. We will attempt to substantiate this assumption by the following brief review.

Clearly, even statistically significant interdependence cannot be adduced as proof; it is at best an illustration that demonstrates the possibility of correlation or causation. We believe the most acceptable approach on which to base our hypothesis is a combination of statistical analysis and a reasonable micro-level interpretation of the incentives of economic agents. It is

[12] Especially when sufficiently large values have accumulated for the variables RoL and LG. If certain norms have become established in society, norms which limit violence and foster respect for property, then these norms were operative even in California of the days of the Gold Rush. All prejudices and myths notwithstanding, the death rate in this region was lower than in the FDC, that stronghold of modern American liberalism larded with police officers and disarmed citizens in comparable numbers.

Historically, the differences between the roving bandits "holding a license" and those without a state affiliation, have not been that great. The boundary between them has blurred (consider Francis Drake, Stepan Razin, Hayreddin Barbarossa, the PLO, et al.). That is, the "providers" of violence stand out only in civilized society with a limited government. Before this, or without this, differences between the various kinds of roving bandits are reducible to minor points. The only significant kind of difference in this connection obtains between the roving bandit and the stationary one. And even that is far from always necessarily the case.

self-evident that the propensity of the overwhelming majority of agents is to obtain material goods and to enjoy freedom, and that these agents attach the highest priority to obtaining these goals. We attempted[13] to describe this phenomenon by way of examining Human Life Value (HLV) in the fields of life insurance and hostage trades[14]. It must be emphasized that there exists no clear division between the two values of protection of life and freedom. A person seized by terrorists or other "roving" or "stationary" bandits finds himself or herself in conditions that clearly threaten his or her life and / or dramatically lower their quality of life. For example, jailed businessmen would be happy to exchange all of their assets for life and freedom[15]. Therefore, the threat of incarceration could be an effective tactic to extort money from businessmen (e.g., the Gusinsky case, 2000).

The level of protection can be defined as a value inversely related to the level of threats to life and freedom[16]. Scully (1997) analyzed the worse cases of violence (highest level of danger). He supposed the rational dictator could use the mass murder to strengthen his power and prevent challenges, if people's life is cheap enough. We believe the less danger to be murdered for the economic agent, higher probability of private investments and stronger agents' incentives to "pursuit happiness" (to reach economic successes). So the ambitious rational dictator should sometimes restrict his repressions against skilled personnel heavily invested previously in their Human capital (Hitler, Stalin – supports Scully's approach). Less ambitious dictator (Pol Pot) specially focused repression against intellectuals (contradicts to the same).

Olson notes that as projects become more time consuming and transactions more intricate, guarantees must be at the highest level. It follows that the necessary condition for economic growth is a progressive reduction in the level of threats to the life and freedom of a citizen. For example, the Communist elite of China had broken the consecution of regular

[13] In some countries, a conditional assessment of human life value is established by legislation. The US Ministry of Transportation uses a conditional estimation of the value of human life when assessing the efficiency of investments in measures designed to ensure transport safety. At present, the conditional human life value in the USA amounts to 3 million USD. The insurance market demonstrates that as far as the market agents are concerned, the assessed value of life is comparable to the value of all owned assets. For details see: respective Jerusalem Institute (JIMS) for market studies working paper http://www.jims-israel.org/pdf/InstitutionsGrowth.pdf. It was found that the demand for a complementary good such as Health is not elastic.

[14] The ransoms for hostage in Iraq supposedly range from 50 thousand to 2,5-7 million USD – see for example http://www.timesonline.co.uk/tol/news/world/iraq/article723364.ece

[15] Cases of Huang Guang Yu (PRC), Khodorkovsky (Russia) and many others in the Rule of Force countries show the real value of formal private property guaranties without RoL practices.

[16] The list of the levels of human life and freedom protection description presented in the JIMS WP http://www.jims-israel.org/pdf/InstitutionsGrowth.pdf . Scully (1997) analyzed the worse cases of violence (highest level of danger). He supposed the rational dictator could use the mass murder to strengthen his power and prevent challenges, if people's life is cheap enough. We believe the less danger to be murdered for the economic agent, higher probability of investments and stronger incentives to "pursuit happiness" (to reach economic successes). So the ambitious rational dictator should sometimes restrict his repressions against skilled personnel (Hitler, Stalin). Less ambitious (Pol Pot) specially focused repression against intellectuals.

waves of the mass repression (murders). . The lack of the guaranties problem in China has been solved to some extent by unofficially granting personal immunity to foreigners from developed RoL democracies (till the "Rio Tinto" – Stern Hu case[17]).

As people are usually inclined to value their life at least as high as the sum of all their assets, the very existence of private property institutions without basic guaranties of life and liberty is meaningless. Thus, the assumption about the lexicographical character of peoples' demand (or preference) for life (quality of life, life and freedom) proved to be reasonable.

STATISTICAL ANALYSIS

To validate our hypothesis we have conducted a statistical analysis. Before progressing to that data, it is worth mentioning that others, such as Przevorski et al. (2000), have arrived at similar conclusions. He shows[18] that in the absence of decisive advantages that would tend to affect economic growth, democracies exhibit a higher stability in terms of growth rates than do dictatorships.

As further "common sense" evidence to support our hypothesis, it is apparent that the overwhelming majority of rich countries are democratic. However, it inevitably becomes necessary to test the hypothesis that in the historical very long run (VLR) period, in excess of 100 years, a democratic regime or - to be more precise - a RoL democracy (Mau - Yanovskiy - Zhavoronkov et al. 2003) will exhibit a positive statistical connection to growth rates of per-capita GDP. In our research we used a 180-year sample because it offers considerably more possibilities for analyzing the existence of cause-and-effect relationships between democratic institutions and economic growth.

The statistical illustration presented below demonstrates the presence of a clear and strong relationship between a number of variables. This data is a rough draft due to the numerous "re-establishments" of missing data which led to a weakening of the connection[19].

The obtained interrelationships confirmed the null hypothesis that a Rule of Law democracy provides advantages when compared to all alternative regime types in the historical very long run of our sample set. The available data is sufficient for this conclusion to be proved.

Data and the collection method

[17] http://www.channelnewsasia.com/stories/afp_asiapacific_business/view/448282/1/.html
[18] He analyzes the forty year period 1950-90 based on a sample of 100 countries.
[19] That is, so as not to artificially strengthen the interdependence.

Before progressing to the data we feel it is necessary to clarify and explain a few points. The statistical data in the form of per-capita GDP are taken from the works of Maddison (2001, 2003). The Oil Monarchies are not included in the data set because we did not wish to complicate the model with the introduction of yet another variable that we were not testing. Also, the duration of the regime of rule-of law democracy in a country was determined on the basis of data found in Freedom House, Przevorski et al. (2000), Tanin-Lvov (2001) and in a number of sources used for collecting the data for estimating the values of variables 3-5 (*Table 1*).

The data that Maddison provides for a large number of countries and practically all the large global regions, makes it possible to approximate the intervals of the initial per-capita GDP for another 145 countries.

Unfortunately, there is no GDP data on many countries for the 19th century. Where GDP data for a third world and non-democratic country was unavailable, we used the per-capita GDP index for the year 1820. We established the year 1820 as a minimum level for this category of countries described by Maddison to extend the sample. We used a reduced sample of countries with Maddisons' assessments of per capita GDP provided directly as well (*Table 2,* dependencies 1a and 2a).

Maximum assessments were used for particular regions containing countries that have experienced democratic rule for decades. For countries that were "less mature" in this respect, or those with only a few years of democratic experience during the period 1820-2000, we chose the minimum level. This distinction resulted in a reduction of the average rate of growth of per-capita GDP for democracies, and an increase of such growth for authoritarian countries. This was done to prevent an overestimation of the significance of democracy[20]. In other words, the "reconstructed" data inevitably and intentionally reduces the explanatory capacity of the model by limiting the effect of potential outliers.

The total number of countries in the "big" sample is 145, including the regional data application for the relatively young countries which had GDP values for 1820. Of that number, the data of 94 countries have been "reconstructed" by data on the respective regions.

To detect the existence of an independent court system (see criterion (2) above) we assumed the stability of both the old RoL democracies and the totalitarian countries (such as the USSR 1917-91; PRC since 1949, etc.).

Thus, we mainly focused on the countries where some indications of political competition were found and therefore the probability that judges enjoyed independence was

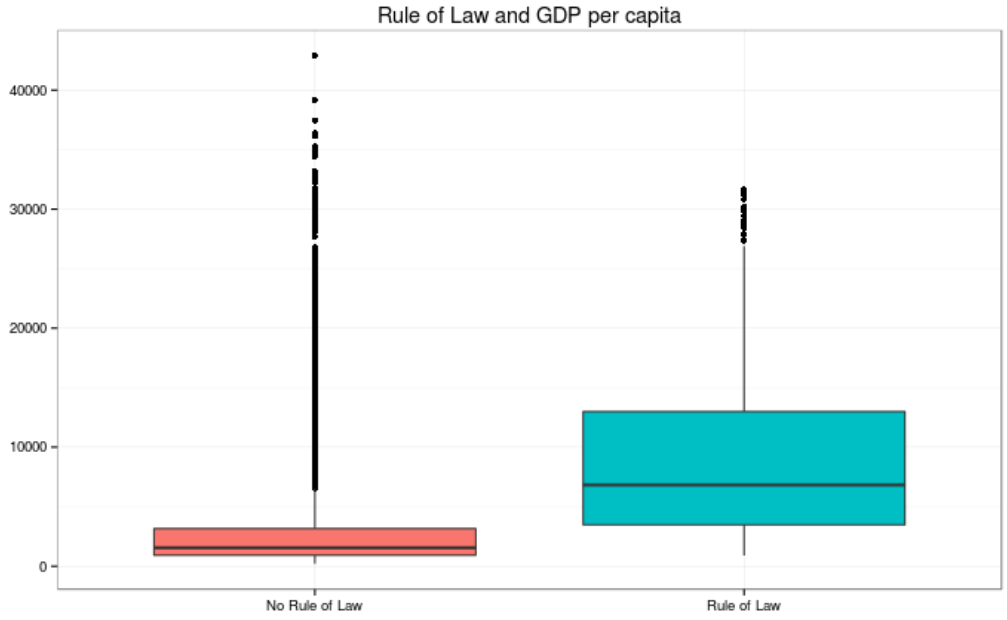
[20] Naturally, this has overrated the significance of initial GDP for further growth, because in an absolute majority of cases, countries with an experience of democracy have had significantly higher rates of growth than non-democratic countries during the 180-year period under discussion.

seen as definitely non-zero[21] (for example Egypt, Iran in the 1980-90s). We also paid special attention to the underdeveloped countries (periods) that were assessed to be at a high level, comparable to old RoL democracies by the Freedom House and Fraser Institute (Economic Freedom Index) experts (marked as "partly free" or "free" by the Freedom House – Mali since 2002).

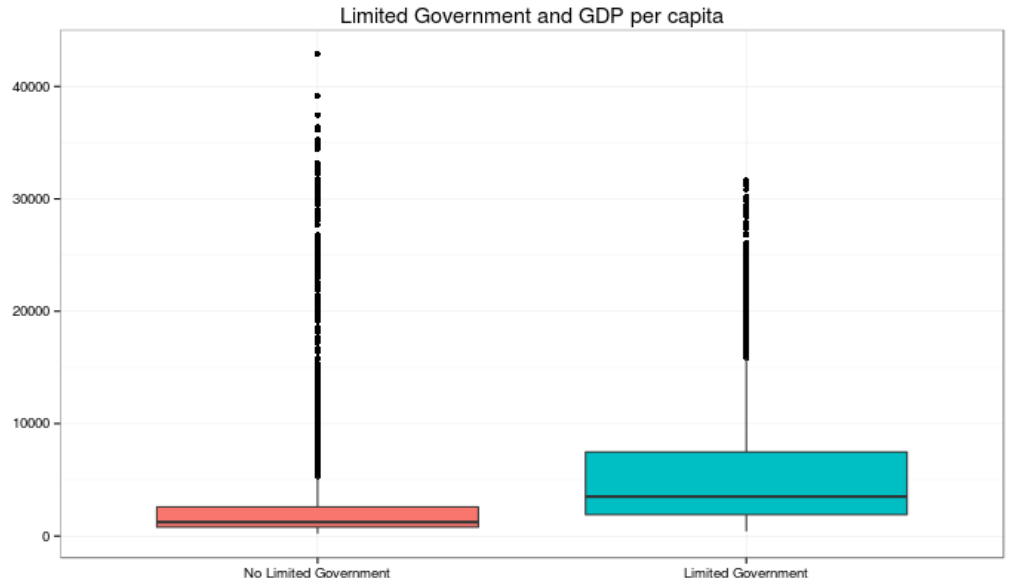
Table 1: Principal Variables Description

Designation of Variables	Description of Variables
Limited Government	Logical variable equals 1 when at least one of three conditions mentioned above, p. 6 was met
Rule of Law Democracy	Logical variable equals 1 when all three conditions (p. 6) was met
Limited Government (Cumulative)	Numbers of years with Limited Gov-t equals 1 up to this point in time
Rule of Law Democracy (Cumulative)	Numbers of years with Rule of Law Democracy equals 1 up to this point in time
Polity IV (P2 score)	Polity IV Data Base

We used the same approach to collect data for criterion 3 ("opposition media"). The simplest task proved to be sorting the countries according to Przeworski's criterion (criterion 1). We simply used the following sources and conducted an additional check if the criteria 2 and 3 values were found to be different from Przeworski's criterion value.



[21] The long-term activity of a civically skilled opposition or an elite cleavage causing a long-lasting equilibrium of power both happen so rarely that it is not difficult to detect them all, and check if the Government ever lost a widely publicized and politically significant case in the Court and complied with its decision, and could it ever lose in a court of law.



Data Analysis

Table 1. Descriptive Statistics

Statistic	N	Mean	St. Dev.	Min	Max
Rule of Law	32618	0.089	0.285	0	1
Limited Govt	32618	0.226	0.418	0	1
GDP per capita	12426	4101.458	5116.373	203.000	42916.000
Growth	12051	1.852	6.294	-94.048	86.946
Ln(Growth)	12051	1.852	6.294	-94.048	86.946
Math Olympics	12051	1.626	6.871	-282.140	62.560
Population, thds	9463	141304.400	934553.700	0.000	10487178.000
Polity 2 Score	14450	-0.418	6.998	-10	10
Oil	32584	0.027	0.164	0	1
GDP, mln	12426	3176.975	1933.792	1	6338
EFW Index	1658	6.417	1.205	2.470	9.150
Cumulative RoL	32618	5.419	21.067	0	194
Cumulative Limited Govt	32618	15.332	34.782	0	199

Table 2. Cumulative RoL and GDP per capita, OLS

	Dependent variable:

	GDP per capita				
	(1)	(2)	(3)	(4)	(5)
Ln(Cum. RoL)	2,892.5***	3,093.2***	3,091.6***	3,074.4***	3,035.8***
	(90.9)	(91.3)	(91.3)	(90.6)	(93.6)
European		-3,219.9***	-3,393.6***	-3,565.7***	-3,850.8***
		(397.5)	(405.3)	(402.6)	(438.6)
Civil Law			527.0**	426.9*	354.5
			(243.6)	(242.0)	(245.9)
Wars				-2,715.7***	-2,546.1***
				(372.4)	(386.5)
Muslim					-1,500.0
					(915.9)
Constant	-1,839.9***	387.0	141.0	643.2	1,117.5**
	(339.8)	(461.6)	(475.2)	(476.2)	(557.3)
Observations	3,121	3,103	3,103	3,103	3,103
Adjusted R2	0.2	0.3	0.3	0.3	0.3
Note:					*p<0.1; **p<0.05; ***p<0.01

Table 3. Cumulative LimGovt and GDP per capita, OLS

	Dependent variable:				
	GDP per capita				
	(1)	(2)	(3)	(4)	(5)

Ln(Cum. LimGovt)	2,117.7***	2,355.2***	2,344.0***	2,333.2***	2,298.4***
	(47.5)	(52.9)	(52.9)	(53.2)	(53.4)
European		-1,672.7***	-1,496.0***	-1,498.1***	-2,062.5***
		(164.3)	(170.1)	(170.2)	(194.1)
Civil Law			-564.9***	-599.3***	-640.2***
			(142.8)	(142.9)	(142.7)
Wars				-963.2***	-932.7***
				(216.2)	(215.7)
Muslim					-1,530.4***
					(255.3)
Constant	-2,377.5***	-1,901.5***	-1,557.2***	-1,419.8***	-676.4***
	(183.6)	(188.0)	(207.0)	(209.7)	(243.2)
Observations	7,293	7,235	7,235	7,224	7,224
Adjusted R2	0.2	0.2	0.2	0.2	0.2

Note: *p<0.1; **p<0.05; ***p<0.01

Table 4. Democracy and GDP per capita, OLS

	Dependent variable:				
	GDP per capita				
	(1)	(2)	(3)	(4)	(5)
Polity 2 Score	292.9***	267.1***	276.6***	276.5***	282.2***

	(6.2)	(6.8)	(6.9)	(6.9)	(6.9)
European		920.2***	1,357.2***	1,374.7***	1,837.1***
		(101.6)	(110.8)	(110.7)	(123.6)
Civil Law			-1,054.5***	-1,101.5***	-1,052.7***
			(109.2)	(109.4)	(109.2)
Wars				-1,315.3***	-1,276.8***
				(168.3)	(167.8)
Muslim					1,160.4***
					(139.7)
Constant	4,176.4***	3,600.7***	4,025.7***	4,153.1***	3,616.4***
	(45.3)	(74.9)	(86.6)	(88.6)	(109.4)
Observations	10,373	10,315	10,315	10,265	10,265
Adjusted R2	0.2	0.2	0.2	0.2	0.2
Note:				*p<0.1; **p<0.05; ***p<0.01	

Table 5. Cumulative RoL and GDP per capita, FE

	Dependent variable:			
	GDP per capita			
	(1)	(2)	(3)	(4)
Ln(Cum. RoL)	4,994.8***	5,004.5***	5,004.6***	4,991.7***
	(94.4)	(94.9)	(94.9)	(94.8)

European	62.8	62.8	211.1	
	(1,054.3)	(1,054.4)	(1,053.3)	
Civil Law		-276.6	-250.5	
		(663.2)	(662.0)	
Wars			-1,117.0***	
			(319.3)	
Observations	3,121	3,103	3,103	3,103
Adjusted R2	0.5	0.5	0.5	0.5

Note: *p<0.1; **p<0.05; ***p<0.01

Table 6. Cumulative LimGovt and GDP per capita, FE

	Dependent variable:			
	GDP per capita			
	(1)	(2)	(3)	(4)
Ln(Cum. Lim Govt)	3,526.7***	3,529.0***	3,537.8***	3,570.7***
	(61.3)	(61.3)	(61.4)	(61.7)
European		1,526.6*	1,534.7*	1,665.6*
		(916.4)	(916.0)	(912.8)
Civil Law			-924.0***	-987.1***
			(328.1)	(327.3)
Wars				-1,114.0***

				(194.7)
Observations	7,293	7,235	7,235	7,224
Adjusted R2	0.3	0.3	0.3	0.3

Note: *p<0.1; **p<0.05; ***p<0.01

Table 7. Democracy and GDP per capita, FE

	Dependent variable:			
	GDP per capita			
	(1)	(2)	(3)	(4)
Polity 2 Score	292.6***	291.7***	314.0***	313.0***
	(7.2)	(7.2)	(7.5)	(7.5)
European		-1,128.9	-1,163.8	-836.4
		(751.2)	(747.4)	(750.0)
Civil Law			-1,967.6***	-2,037.9***
			(190.4)	(191.9)
Wars				-853.0***
				(152.7)
Observations	10,373	10,315	10,315	10,265
Adjusted R2	0.1	0.1	0.1	0.1

Note: *p<0.1; **p<0.05; ***p<0.01

Table 8. RoL and GDP per capita Growth, OLS

	Dependent variable:				
	GDP growth rate				
	(1)	(2)	(3)	(4)	(5)
RoL	0.6***	0.6***	0.6***	0.5***	0.5***
	(0.1)	(0.2)	(0.2)	(0.2)	(0.2)
European		-0.05	-0.1	-0.1	-0.1
		(0.1)	(0.1)	(0.1)	(0.2)
Civil Law			0.1	0.01	0.004
			(0.1)	(0.1)	(0.1)
Wars				-1.8***	-1.8***
				(0.2)	(0.2)
Muslim					-0.1
					(0.2)
Constant	1.7***	1.7***	1.7***	1.9***	2.0***
	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
Observations	12,051	11,994	11,994	11,950	11,950
Adjusted R2	0.001	0.001	0.001	0.01	0.01

Note: *p<0.1; **p<0.05; ***p<0.01

Table 9. LimGovt and GDP per capita Growth, OLS

	Dependent variable:				
	GDP growth rate				
	(1)	(2)	(3)	(4)	(5)
LimGovt	0.3***	0.4**	0.4**	0.3*	0.3*

	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
European		-0.04	-0.04	-0.005	-0.1
		(0.1)	(0.1)	(0.1)	(0.2)
Civil Law			0.02	-0.02	-0.03
			(0.1)	(0.1)	(0.1)
Wars				-1.8***	-1.8***
				(0.2)	(0.2)
Muslim					-0.1
					(0.2)
Constant	1.7***	1.7***	1.7***	1.9***	1.9***
	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
Observations	12,051	11,994	11,994	11,950	11,950
Adjusted R2	0.001	0.001	0.000	0.01	0.01

Note: *p<0.1; **p<0.05; ***p<0.01

Table 10. RoL and GDP per capita Growth, FE

	Dependent variable:			
	GDP growth rate			
	(1)	(2)	(3)	(4)
RoL	1.2***	1.2***	1.2***	1.1***
	(0.2)	(0.2)	(0.2)	(0.2)
European		0.9	0.9	1.4
		(1.1)	(1.1)	(1.1)
Civil Law			0.4	0.3
			(0.3)	(0.3)
Wars				-1.9***
				(0.2)
Observations	12,051	11,994	11,994	11,950
Adjusted R2	0.002	0.003	0.003	0.01

Note: *p<0.1; **p<0.05; ***p<0.01

Table 11. LimGovt and GDP per capita Growth, FE

	Dependent variable:			
	GDP growth rate			
	(1)	(2)	(3)	(4)

LimGovt	0.3*	0.4**	0.3	0.2
	(0.2)	(0.2)	(0.2)	(0.2)
European		1.1	1.1	1.6
		(1.1)	(1.1)	(1.1)
Civil Law			0.4	0.4
			(0.3)	(0.3)
Wars				-1.9***
				(0.2)
Observations	12,051	11,994	11,994	11,950
Adjusted R2	0.000	0.000	0.001	0.01

Note: *p<0.1; **p<0.05; ***p<0.01

Table 12: Granger Causality Test for 163 countries

Dependent Var.	Independent Variable	Caused	Not Caused	No Variation
GDP pc growth	Limited Government	57	51	55
GDP pc growth	Rule of Law	52	58	53
GDP pc growth	Limited Government (Cumul.)	25	17	121
GDP pc growth	Rule of Law (Cumul.)	23	19	121
Limited Govt	GDP pc growth	20	88	55
RoL	GDP pc growth	29	81	53
Limited Govt (Cumul.)	GDP pc growth	11	31	121
RoL (Cumul.)	GDP pc growth	18	24	121

CONCLUSIONS

Our analysis supports the hypothesis regarding the ability of RoL Democracies to provide the best framework for VLR economic growth. RoL Democracies induce economic growth throughout the world by exporting their capital, knowledge and institutions as well. Conversely, the export of institutions from regimes such as the USSR, Nazi Germany, PR

China, cause economic failures. Even the supply of free oil and gas, weapons and educational services to their allies proved not to be due compensation for the same. As these externalities are ignored by most of the models reviewed above (and by ours as well), the advantages of RoL Democracy institutions as illustrated by *Table 2* (Dependencies 1 and 2) are confirmed even more robustly.

The hypothesis regarding the direction of causality could not be rejected. RoL democracies provide significant guarantees of private property and thus they are the best framework for stimulating private saving, investment and sustainable economic growth in the long-term.

Private property can be said to be protected only if a person's right to life and liberty is guaranteed[22.] In a certain sense the modern institution of private property is a product of the appearance of RoL regimes. Without the guarantees of life and personal immunity, agents' demand for private property is very low as they would clearly prefer to save their lives, rather than their money. Thus, a regime where an independent court system and independent media exist provides much more favorable conditions for economic growth in post-communist countries. This is true as long as stable voter demand for such institutions exists over an extended period so that such values become deeply-rooted and broadly shared. This in turn should lead to a constitutional guarantee for the above through formal legislation, as well as informal societal and cultural standards.

The advantages of a Rule of Law democracy are rooted in the guarantee of personal immunity. The freedom provided by a RoL democracy is a necessary condition for the effective protection of private property and for continued economic prosperity and growth in the very long run.

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[22] Such provisions must be potent enough to guarantee the immunity even of a person whose religious faith is not shared by the government, or of a person who is critical of the government.

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