

# HOW DO LEGAL SYSTEMS AFFECT LAND DISTRIBUTION?: A LONG-RUN DISAGGREGATED ANALYSIS\*

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## Abstract

Using a new panel data set on land inequality that stretches back to early 1900s, this paper investigates the impact of legal systems on land distribution across 80 countries. It finds that, holding colonial history and the level of development constant, English, Spanish and Dutch law systems are associated with lower land inequality, while countries whose legal systems contain elements of Canon law, Islamic law and traces of early Roman law have higher land inequality. Importantly, Civil law and French law do not exert significant influence on land distribution. There is also evidence that colonial history influences the way in which legal systems affect land distribution. The paper also studies the impact of legal systems on decile distribution of land.

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## 1. Introduction

Following the pioneering work of La Porta, Lopez-de-Silanes, Shleifer and Vishny (1997, 1998) – henceforth LLSV, there has emerged a significant body of economics literature on the sources, formation and consequences of legal traditions. LLSV's (1997, 1998) investigation of the legal protection of investors and its consequences on financial development showed that: (i) legal rules that shape investor protection can be measured and coded for a number of countries using corporate and bankruptcy laws, which are also known as commercial laws; and (ii) there exist significant differences among legal traditions towards investor protection across countries. Specifically, countries following common law provide a better protector of investor rights than their counterparts following civil law. In addition, LLSV (1997, 1998) argue that legal systems are mostly exogenous, as legal rules are imparted into countries through conquest and colonization. To answer their critics who point out that legal rules and traditions may be a proxy for either culture or politics or history, La Porta, Lopes-de-Silanes and Shleifer (2007) provide evidence that culture, politics and history affect the laws, regulations and economic outcomes, but none of these can be treated as a proxy for legal origin.

The exogenous nature of legal systems has become a handy piece of information for researchers of economic development because it would address the endogeneity concerns in the determinants of long-run growth. This information prompted a proliferation growth regressions that use legal systems as control or instrumental variables. This wave of research also coincides with essentially distinct but much related line of research on the impact of colonial history on long-run development that was initiated by Acemoglu, Johnson and Robinson (2001). Although colonial history can explain part of the cross-country differences in legal systems, para-colonial nature of legal traditions - some countries did not have colonial past, as well as legal systems *were* formed before and after colonization - implies that they can exert distinct effects on key economic outcomes.

Land distribution falls into the center of these economic outcomes of interest. First, just as legal systems and colonial past, land distribution is less of a contemporary issue for a country. Its formation and evolution goes back to earlier centuries, and hence it contains significant information regarding the underlying nature/structure of the economy. Second, due to this reason, it is part of countries' institutional structure, possessing strong potential to drive much of the contemporary economic variables, affecting welfare. In fact, Birdsall and Londono (1997) and Deininger and Squire (1998) find a strong negative relationship between initial asset (land) inequality and long-run economic growth.<sup>1</sup> Galor, Moav and Vollrath (2008) suggest that inequality in the distribution of land ownership adversely affect the emergence of institutions promoting human capital, like public schooling, slowing down the pace and nature of transition from agricultural to industrial economy. The above phenomenon, according to Galor *et al.* (2008), can explain the great divergence in per capita incomes across countries. Vollrath and Erickson (2007), among others, report that initial land inequality significantly affects financial development across countries.

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<sup>1</sup> Land inequality is widely used as a proxy for asset inequality.

The objective of this paper is to find the association between various legal traditions and the distribution of land ownership with a view to establish the link between two influential actors lying behind the long-run development. Broadly speaking, legal systems can affect land distribution in two ways. First, codes related to land ownership, land rights, land use, and land inheritance can affect landholding. If a legal system comprises codes that support individual ownership, full property rights, and full end-user or disposal rights, then the landowner would have flexibility in cultivating the land, buying more land to achieve economies of scale, or disposing the land at will. On the other hand, if the legal system promotes only joint ownership and partial inheritance, then this would limit the flexibility in landholding. Second, legal traditions – as meta systems – can host several different effects that can influence landholding. For instance, LLSV (1999) argues that the countries with French legal system are generally interventionist, have less efficient governments, more bureaucratic delays, lower provision of basic public goods and lower infrastructure quality, as compared to countries with common law based legal structure. These characteristics can influence investment decisions, landholding being one of them.

The present study makes use of a new panel data set on land inequality for 80 countries. The timeframe for the data on land distribution spans the 20<sup>th</sup> century. In doing so, this paper adds to the literature in two novel ways. First and foremost, it extends the line of research involving legal system of landholding and its related consequences on land distribution for developing and developed world.<sup>2</sup> To date, potential impact of different legal systems on landholding has not been analyzed. Second, it provides a detailed analysis of land distribution using decile data, which enables exploring the impact of legal systems on land ownership at more disaggregated segments of land distribution.

In empirical analysis, two issues need careful attention. The first involves pinning down the impact of legal systems on land distribution among confounding effects of colonial history and possibly the level of economic development. In our empirical specification we hold these two variables constant. Further to the point, Acemoglu *et al.* (2001) argue that colonization had different objectives in different colonies, namely settlement vs extraction. In our context whether a colony was a settlement colony or an extractive colony would affect the legal codes that were imparted by the colonizers. To address this, we take the approach of Acemoglu, Johnson, Robinson and Yared (2007), who note that countries that gained their independence relatively recently are extractive colonies while those that became independent earlier are settlement colonies (e.g., US, Australia, etc). Thus, we hold independence year constant to control for the nature of the colonization.

The second issue in the empirical analysis is the categorization of legal systems. In countries where multiple legal regimes are at work, e.g., some countries in Africa, Latin America or the Middle East, the overall legal structure may follow civil law tradition, but laws governing land may follow customary rules and procedures (Johnson, 1972). our first categorization is that of the CIA World Factbook 1990, which provides information

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<sup>2</sup> Feder and Feeny (1991) explores the nature and evolution of land tenure and property rights systems, and their effect on resource allocation in agriculture in developing countries. But they do not analyze the legal aspect shaping these property rights.

on extant legal structures within countries, spanning a variety of legal systems. Second, we use the LLSV (1999) classification, which establishes five different law systems: English, French, German, Scandinavian and Socialist. The LLSV classification is based on commercial law.<sup>3</sup> While this feature may appear to suggest a mismatch for the analysis of land inequality, property rights play an important role in commercial law. In addition, the LLSV classification has been found to explain cross-country differences in various economic variables such as financial development, unemployment, investment, business entry, the size of unofficial economy, and international trade. The third categorization is our own classification. We come up with a new classification of legal systems based on the legal rules and procedures guiding land tenure decisions. We have used a number of resources, including country reports prepared by Land Tenure Center, University of Wisconsin-Madison, USA to construct a classification based specifically on property laws. In this draft, we report results with LLSV and CIA Factbook 1990 classification.

Our overall results can be summarized as follows. Using the CIA classification, and after holding colonial history and the level of development constant, we find that English, Spanish and Dutch legal systems are associated with lower land inequality. On the other hand, countries whose legal systems contain elements of Canon law, Islamic law and traces of early Roman law have higher land inequality. Importantly, Civil law and French law do not exert significant influence on land distribution. Using the LLSV classification of legal systems, we find that, compared to British legal system, French legal system is associated with higher land inequality, while German and Scandinavian systems are with lower inequality. Both sets of categorization indicate an evidence that colonial history influences the way in which legal systems affect land distribution.

The rest of the paper is organized as follows. The next section gives us a broad overview of literature on comparative legal systems in the modern world and argues how these may affect land distribution. Section 3 describes the data. Section 4 outlines the methodology, and Section 5 discusses the results. Section 6 concludes.

## **2. Literature review**

According to legal scholars like David and Brierley (1985, henceforth DB), there is a number of legal systems prevailing in modern world. Zweigert and Kotz (1992, henceforth ZK) mention that DB's (1985) categorization of legal systems is based on two criteria, ideology and legal technique. Ideology is a product of factors like religion, philosophy, political structure, economic framework and social structure, while legal technique characterizes the differences in application of legal rules and procedures. DB categorizes the following three major legal families: Romano-Germanic, Common law and Socialist. Apart from these families, DB point to four more laws of communities which do not have any political organization: Canon law, Islamic law, Hindu law and Jewish law. Meanwhile, ZK (1992) argue for another major legal family: Nordic legal

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<sup>3</sup> LLSV (1997, 1998) made the classification for 49 countries while LLSV (1999) expanded this to a number of countries using, among others, CIA World Factbook (1996).

family (i.e., Denmark, Finland, Iceland, Norway and Sweden). DB (1985, pp. 15) mentions: “This last observation respecting the sources of law suggests a further range of differences between legal systems which must be underscored. Each system has concepts through which its rules are expressed and categories within which they are organized. And the legal rule itself in each of them is expressed in a particular way. The study of any legal system supposes that there is an awareness of such structural differences.” Therefore, not only codes/laws are influencing property rights, but concepts shaping those rules and interpretation of rules also play critical roles in determining property rights. In what follows, we discuss the above mentioned legal systems and tease out their links to land rights and ownership.

## **2.1. Common law system**

Common law, according to DB (1985), is primarily formed by judges who had to resolve specific disputes. “The Common law legal rule is one which seeks to provide the solution to a trial rather than to formulate a general rule of conduct for the future.....Matters relating to the administration of justice, procedure, evidence and executions of judgments have, for Common law lawyers, an importance equal, or even superior, to substantive legal rules because, historically, their immediate preoccupation has been to re-establish peace rather than articulate a moral basis for the social order.” The origins of Common law can also be traced back to Royal power, and these laws were specifically developed to maintain peace within the English Kingdom. DB (1985) characterizes the nature of Common law as *public* law, as “for contestations between private individuals did not fall within the purview of the Common law courts save to the extent that they involved the interest of the crown or kingdom.” Mahoney (2001, pp. 504), points that “English common law developed because landed aristocrats and merchants wanted a system of law that would provide strong protections for property and contract rights, and limit the crown’s ability to interfere in markets.” Joierman (2001), therefore, mentions that English law “developed to protect the property of individuals and limit the power of the state to expropriate resources.” ZK (1992) mention in the context of classification of legal systems that under Common law systems, there exists “many peculiarities of property law with its various degrees of property and the division between real and personal property”, which in turn may lead to conflicting views regarding property rights in general.

## **2.2. Romano-Germanic Civil law system**

Romano-Germanic (or, civil law) tradition is the oldest legal tradition. Rules of law in this family are linked to ideas of justice and morality (see, *inter alia*, DB, 1985; La Porta *et al.*, 2007; Mahoney, 2001 and Glendon *et al.*, 1982, 1999). Historically, Romano-Germanic tradition evolved as a *private* law which helps to regulate the private relationships between individual citizens. There are two basic strands of this tradition: French and German. Glendon *et al.* (1982) mentions that French civil code (in the field of private law) is based on three ideological pillars, namely, private property, freedom of contract and patriarchal family. With private property, “the Code’s architects consciously sought to break up the estates of the powerful landed aristocracy” with the help of private

law devices like “prohibitions on restraints on alienations and limitations on freedom of testation” (see, Glendon *et al.*, 1982, pp. 30). French revolutionary ideas and Napoleonic rule have influenced the formation of public aspect of French civil law. In the 20<sup>th</sup> century, legislation created new areas of law like laws governing ‘agricultural holdings’ which were not listed in the codes of civil procedure developed before the 20<sup>th</sup> century. Land’s importance as an immovable property was, however, pointed out in the civil codes. Glendon *et al.* (1982) mentions that the right of property ownership “was considered absolute and the protection of private property was regarded as an important function of the state.” This view is from the public aspect of the civil codes and procedures. Two issues stand out regarding property rights involving land from the above discussion: (i) Land is treated as an important property and the right of land ownership was protected by the state and (ii) landed aristocracies were not encouraged under the French civil code, at least from the historical perspective.

### **2.3. German legal tradition**

German civil code was also developed by legal scholars, who drew upon heavily from the ancient Roman rules. High on scholastic merits, German civil code in the beginning of 20<sup>th</sup> century was, however, very much impractical with its virtually zero applicability. Regarding property rights, German civil code has strong resemblance with their French counterpart. ZK (1992, pp. 35) mention that in Germany, the land register system and its concept of ‘public reliance’ is not ingrained in the legal system. It was rather an extra-legal arrangement, which is later emulated in France and even in Anglo-American system where a private insurance company (or land register for Germany) guarantees the insured against any loss she/he may suffer in case a third person’s rights diminish the value of her/his property. This example lends credentials to differences in legal arrangements even within a broad legal system (say, the German legal system) which becomes an empirical question to pursue.

### **2.4. Nordic (Scandinavian) legal systems**

ZK (1992) argue that even if the Nordic legal system has some similarity with the Civil law system (as both Nordic and Civil law systems are influenced by Roman law), it needs to be treated as a separate legal system. The Nordic system is characterized by close interrelationships and common ‘stylistic’ hallmarks in those countries where it prevails. In the earlier part of 20<sup>th</sup> century, ‘Law of contracts and other legal transactions in the law of property and obligations’ was unified among the Nordic countries of Sweden, Denmark and Norway between 1915 and 1918 and in Finland in 1929.

### **2.5. African legal systems**

Legal systems in African countries are characterized by two major strands: inheritance of colonial legal rules and indigenous legal rules. In the spheres of law of obligations, commercial law, criminal law and administrative law, colonial legal rules dominate. For all other spheres of law, including land reforms and agricultural commercialization,

traditional laws and customs are prevalent. If we base our classification with respect to commercial law, we can classify two main legal systems in Africa, i.e., common law and civil law. Joierman (2001) finds that generally, at the national level, common law countries in Africa are better providers of 'rule of law' than countries following civil law tradition. This finding and the above strands point to an interesting issue: there is a difference between legal system at the national level and sub-national level. At the national level, western legal ideas and colonial legal systems prevail, but regarding land reforms and agricultural issues, which we can view at a sub-national level, traditional laws and customs dominate. The sub-national system is, for the most of the time, creation of colonizers who wanted to rule their colonies via indirect rule (see, *inter alia*, Joierman, 2001 for Africa and DB, 1985 for India). Johnson (1972) mentions that "in some African countries customary laws exist side by side with statutory laws governing land", which in turn influenced the land distribution. Johnson (1972) also cites evidence that in British ruled Sierra Leone, enforcement of customary law was made subject to natural justice, equity and good conscience, which in turn are susceptible to discretion. Johnson (1972) compares three general tenure systems, (i) communal, (ii) landlord-tenant and (iii) owner-cultivator. In the communal system, land is common property and allocated as first-come-first-serve basis to private individuals without clearly defined property rights. In landlord-tenant system, the landlord owns the land and rents it out to the tenant-farmer in exchange of rent. If the property rights are weak and are supplemented by poor enforcement, then landlord-tenant system is not efficient in terms of land allocation. Johnson (1972) argues that owner-cultivator is the best in terms of efficient allocation and use of land if clear private property rights exist. The owner-cultivator system works well "only when there is clear title to land and this title has legal and tenure certainty, and when contract costs are low. Once this is realized the advantages of owner-cultivator systems over landlord-tenant systems are not what they are usually supposed to be. Both depend for their efficient operation on high technological efficiency of the legal system and on the low cost of making written contracts." Legal and tenure certainty may not be available in a customary and traditional legal setup.

## **2.6. Hindu legal tradition**

Banerjee and Iyer (2005) show that in India, under British colonial rule, the property rights over land vary from region to region based on mainly administrative reasoning regarding land revenue collection. They mention three different land tenure and land revenue earning systems, namely, the 'landlord-based' system, the individual 'cultivator-based' system and the 'village-based' system. These are spread across three British Indian administrative divisions: the Bengal presidency (in Eastern India), the Madras presidency (in Southern India) and the Bombay presidency (in the Western India). In a large part of Bengal presidency as well as in some parts of Madras presidency the 'landlord' system was encouraged, where landlord has the property right on land. The 'cultivator-based' system was prevalent in most areas of Madras and Bombay presidencies, where the revenue settlement was made directly with the individual cultivator. "In these areas, an extensive cadastral survey of the land was done and a detailed record-of-rights was prepared, which served as the legal title to the land for the cultivator." The 'village-based' system was adopted in the North-Western parts of India

in which village bodies owning the village were responsible for land revenue generation. These different policies and land revenue arrangements lead to widespread regional disparities in land distribution and wealth distribution which continued in the post independence era as well. DB (1985) and ZK (1992) mention that even if Indian legal system can be characterized under common law system (inherited from Britain), the rules and procedures of property rights varies as these are based on administrative necessities. Therefore, for India also, we can point that there exists a difference between national common law system and sub-national system, which are at times based on traditional rules and customary laws.

## **2.7. Islamic legal tradition**

Legal systems in Middle-Eastern, Arab and Islamic countries also resemble the underlying division between a national legal system (inherited either from historical past or from colonial origin) and sub-national systems based on tradition and customary Islamic laws. Islamic law is in principle ‘immutable’, as it is the law revealed by God. Later additions to this law are viewed as discoveries and better understanding of a law which already exists. It is pervasive in the sense that it controls all spheres of human life, and not only property rights issues. ZK (1992) point that historically, over time, four legal strands branched out from the Islamic religious legal school and spread all over the Islamic world: the ‘Maliki’ school was prevalent in North, West and Central Africa; the ‘Hanafi’ in the Near and Middle East and the Indus Valley; the ‘Shafi’i’ in East Africa, Malaysia and Indonesia, and the ‘Hanbali’ in Saudi Arabia. Ottoman rule between 1840 and 1876 influenced reform of the ancient Islamic law and Islamic law of property and obligations were drafted according to the Hanafi school of thought.

Ziadeh (1985) mentions that land laws and rights to land are derived both from Islamic law and secular decrees issued by Ottoman rulers since 1849. The rules of Islamic law concerning land do not reflect a systematic treatment of property rights. Also the categorization of lands is not made based on property rights issues only. Ziadeh (1985) points that, “The Islamic system of land tenure was a result of constant interaction between the desire for complete control of land as an income-producing asset, the needs of the state for revenue, and the requirement of keeping the military classes well paid from a dependable source like land taxes or revenue. As a result of this interaction it was not always clear whether the categorization of land holdings represented differences in the rights of ownership and disposal attached to the land, differences in the amount of mode of taxation levied on that land, or differences as to who was the ultimate beneficiary of the taxes levied on it. Indeed, a categorization could involve all these factors taken together.”

Ziadeh (1985) identifies three distinct land tenure systems: (i) holdings of private property held in full ownership, (ii) holdings of ‘waqf’ lands in perpetuity and (iii) holdings of state-owned properties held as different kinds of estates in land and subject to different conditions of tenure. Land with full ownership (also known as ‘mulk’) has the broadest property rights attached to it, as the owner can “dispose of it in a variety of ways including sale, exchange, gift, lease, loan, pledge, and testament.” Ziadeh (1985) is of the

opinion that property interest in ‘mulk’ is comparable with that of either common law or French civil law. ‘Waqf’ is a separate land tenure characterized by perpetuity, irrevocability and inalienability, which according to Ziadeh (1985) impedes economic development. The third type of land tenure was pervasive in the Islamic history and it is basically state-owned land in the possession of private individuals without any strict property rights being imposed by the traditional Islamic Shariah law. The states, therefore, use decrees to impose and regulate property rights in these lands. These property rights were not uniform in nature, which can be seen as a hindrance to economic development. Ziadeh (1985) provides evidence that in the later part of the 19<sup>th</sup> century, economic factors help expanding rights to ‘waqf’ and state land as well. Regarding ‘waqf’, long term leases were permitted later on and following acts or codes have regulated the use of ‘waqf’ land in the 20<sup>th</sup> century: Egyptian Civil code of 1949 in Egypt, Law no. 138 of 1960 in Iraq, Law no. 76 of 1949 in Syria, Civil code of 1977 in Jordan as well as Decree no. 3339 of 1930 in Lebanon and Syria under French rule. For state lands, reforms begin in early 19<sup>th</sup> century and continued in the 20<sup>th</sup> century as well. In the 19<sup>th</sup> century, under Ottoman Empire, Land Code of 1858 can be termed as an important legal measure as it was intended to “introduce a general system of individual ownership following the abolition of military fiefs and tax-farms.” However, instead of creating proper landholders with land titles, the misuse of the Code resulted in creating large landholders, especially in Syria and Iraq. Ziadeh (1985) also mentions ‘preemption’ and ‘mortgage’ as two differing contractual institutions which also affected land distribution in the Arab countries. Therefore, “Post-war agrarian reforms brought about changes in land tenure and land use that had the double aim of establishing social justice and bringing about an upsurge in economic development.” In 1952, Egypt launched the Egyptian Agrarian Reform Program which helped to restore some of the earlier land distribution biases. Three more countries, Syria, Iraq and Jordan joined the agricultural reform path within the time period 1952 to 1970.

## **2.8. Far Eastern legal system**

The Far Eastern legal family is treated as a separate legal system in both DB (1985) and ZK (1992). Compared to the western legal structures of civil and common law, there is no reliance on ‘rule of law’ in the eastern legal structure. Historically, in the Han dynasty, which ruled China for more than four centuries, administrative and criminal cases are handled based on Confucianism, which resorts to peaceful discussion among conflicting parties to arrive at an equitable solution. Conflicts which are of ‘private’ in nature, for example, family disputes are handled through ‘conciliatory’ setup where a person of high repute due to age or social status and one whose decision would be respected by conflicting parties acts as a facilitator. State laws or judicial structure is completely ignored. In the early 20<sup>th</sup> century, private laws are codified based on German and Swiss law and later on, after the Great Cultural Revolution in 1949, these codes assumed larger importance in private life. Japan, like China also had the difference between legal structures, i.e., private law issues were handled through conciliatory procedures within the relevant social groups. From the beginning of 20<sup>th</sup> century till the Second World War, Japanese Civil and Commercial codes were modeled on Germanic legal system. After the

Second World War, the Common law, especially the North American law had the strongest influence on Japanese law. However, ZK (1992) point that traditional practices and social customs still prevail in Japan which largely influences property rights decisions.

### **3. Data**

The sample in the empirical analysis is determined by the observations available for land distribution.

#### **3.1. Land distribution**

We have used various issues of decennial Food and Agriculture Organization of the United Nations (FAO) reports, *Report on the World Census of Agriculture* as well as of Institut International d'Agriculture (IIA), *International Yearbook of Agricultural Statistics* to obtain data on hectare distribution of land. These reports provide decennial census data on land holdings starting from the early 20<sup>th</sup> century till date except for the 1940s. The data is collated after administering nation-wide surveys, which cover the total national acreage of agricultural land. The holdings refer to the amount of agricultural land assigned to either one person or two persons<sup>4</sup> with full disposal rights. The land is measured in size (acres or hectares) without correcting for quality, location and type of land. The total agricultural area includes all land that is part of a holding, which covers arable land, land under permanent crops, land under permanent meadows and pastures, wood and forest land as well as other lands.

By using the data on hectare distribution of land, we calculate the percentile, decile, quintile holdings of land for each available year within countries. Using this information, we calculate land Gini index to measure the level of inequality in land distribution. The Gini index measures the degree of disparity between each percentile, decile, or quintile. As it assumes that the amount of land held within each percentile, decile or quintile is equal, land inequality is relatively understated in the quintile-based land Gini, while percentile-based land Gini is the most precise among all. We use percentile-based Gini in our estimations, but also utilize the decile distribution itself for a more disaggregate analysis.

#### **3.2. Legal systems**

The CIA World Factbook contain information on legal system in every country. The legal system in Argentina, for example, is described as “mixture of US and West European legal systems; has not accepted compulsory ICJ jurisdiction”. Out of these descriptions, we categorize 20 different descriptors of legal systems across countries: French, English, Belgian, Dutch, Portuguese, German, Roman, Islamic, Customary, Indigenous, Civil, Spanish, Austrian, Swedish, Italian, Argentine, Communist, Canon and Ottoman. Some of these descriptors can in principle be clubbed together as they belong to one of the legal

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<sup>4</sup> Therefore, group, community, state or managing agency operated lands are not covered in the surveys.

traditions of LLSV. For instance, French, Spanish and Roman legal systems belong to the same Civil or French law tradition. Nevertheless, this clubbing would leave a lot of information out. In addition, given that the LLSV classification is based on commercial law, this aggregation would be arbitrary. Moreover, the disaggregate CIA classification can capture the underlying national and sub-national division of legal systems mentioned above. To be specific, take the above example of Argentina. Based on commercial law, LLSV (1997, 1998, 1999) categorize Argentina belonging to the French-origin legal system. CIA Factbook 2007, on the other hand, notes that the overall legal system is a mixture of US and West European legal systems, which point to both common law and civil law legal traditions. Therefore, it will be safe to assume that the overall legal system prevailing in Argentina contains elements of both civil and common law traditions, which in turn may have consequences on property rights and land ownership rights.

One weakness of the CIA Factbook classification is that the weight that each legal system has within the overall set of legal rules is not known. This means that the analysis has to assign an equal weight to each legal system in affecting land distribution. Consequently, one cannot be sure to what extent the impact of a particular legal system is pinned down in the analysis. All that is known is that existence of a particular legal system is associated with land inequality in a particular direction.<sup>5</sup> So, while the results with this classification should be interpreted with care, the diversity in legal systems is a valuable piece of information that should not be discarded.

LLSV (1999) use Reynolds and Flores (1989) and CIA World Factbook (1996) to codify countries into five different legal traditions: English, French, German, Scandinavian and Socialist. The classification is done based on “commercial” laws prevailing in these countries. Laws governing land rights and ownerships are however different in different countries, as pointed out in our earlier literature review. The differences arise mainly due to countries colonial histories, legal rules and systems inherited from the colonizers, as well as traditional rules and customs which determined to a large extent the land ownership and property rights issues. Laws governing property rights in general and land ownership in particular are also different within a colonized country, especially in the African, Middle-Eastern and Asian regions. In these regions, the land related legal issues are mostly settled within a traditional and customary framework even if the national legal system conforms to one of the five legal traditions pointed out in LLSV (1997, 1998).

Table 1 categorizes countries according to the LLSV (1997, 1998) and CIA legal origins classification. As is clear, in the LLSV classification countries have mutually exclusive legal systems, while in the CIA classification a country may have more traces of more than one legal system.

### **3.3. Other variables**

We use the per capita GDP data from Maddison (2008) as the level of development indicator.

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<sup>5</sup> This is not far from the idea of legal traditions being “meta systems” above.

## 4. Econometric Specification and Methodology

We estimate several versions of the following equation:

$$LANDGINI_{it} = \beta_0 + \beta_1 LEGAL_i + \beta_2 COLONY_i + \beta_3 PCAP_{it} + \beta_4 INDEP_i + \varepsilon_{it}$$

where  $i$  denotes countries,  $t$  denotes time,  $LEGAL$  is the vector of legal systems,  $COLONY$  is the vector of colonial powers related to the country in question,  $PCAP$  is the natural logarithm of per capita income,  $INDEP$  denotes the year of independence for country  $i$ , and  $\varepsilon$  denotes the error term. Where appropriate we replace  $LANDGINI$  with decile distribution of land.

In the above equation, one may expect a reverse causation from land inequality to  $PCAP$  because the level of inequality may affect income per capita. Although we include most initial conditions into the regression such as independence year and colonial past, which would control the reverse causation over the long-run, for possible reverse causation due to contemporary effects we instrument  $PCAP$  with  $PCAP_{t-20}$ . Thus, in the specifications where  $PCAP$  is used as an explanatory variable, the estimation methodology is Two-Stage Least Squares (2SLS); otherwise, it is OLS.

Regarding the panel dimension of the dataset, we have an extremely unbalanced panel whereby some countries possess only one observation (around 30 countries in the dataset) and some others have as high as seven observations. Noting that our focus is on time-invariant legal systems, we explore mostly the pooled dataset. In doing so, however, we use time dummies in every estimation to control for possible non-model parametric shifts in land distribution. This is also necessary because the observations in the dataset are drawn from different years. Moreover, we analyze certain time windows (1920-30, 1950-60, and 1970-90) separately, exploring whether the legal systems-land distribution relationship changes over time.

We also carry out several robustness checks. We make use of land Gini data obtained from deciles and quintiles in the distribution, and check the robustness of our results to different sample compositions. Our results are qualitatively similar when such checks are carried out.

## 5. Results and discussion

### 5.1. Land Gini

Table 2 reports the summary statistics of the data used in the estimations. Table 3 makes use of CIA classification of legal systems, while Table 4 focuses instead on the LLSV classification. In both tables, the dependent variable is percentile-based land Gini.

Models 1 through 6 in Table 3 utilize 200-205 observations.<sup>6</sup> Model 1 includes only legal systems, Model 2 uses only colonial past, and Model 3 uses only the level of development as explanatory variables. These models are useful to observe the unconditional relationship between the dependent and independent variables. In Model 1, Swedish, Civil, Communist, Customary, Dutch, English and Indigenous legal systems are found to be associated with lower land inequality, while Argentine and Austrian law systems are associated with higher land inequality. Canon, Ottoman, Italian, French, Islamic, Roman and Spanish legal systems are insignificantly related to land distribution. In terms of colonial history, Model 2 shows that countries with British, Spanish and Portuguese (only Brazil) colonial past are associated with higher land inequality, compared to countries with no colonial history. On the other hand, countries with French and Dutch colonial past do not differ from uncolonized countries in terms of land inequality. Additionally, a country with Belgian colonial past (only Zaire) has lower land inequality. Finally Model 3 shows that the level of development has a positive correlation with land inequality, but this (unconditional) effect is weak.

The implications of conditional relationships are different. Holding colonial past constant (Model 4), Argentine legal system (positive and significant in Model 1), and Civil, Communist and Indigenous legal systems (negative and significant in Model 1) become insignificantly related to land inequality. This implies that in Model 1 the relevant countries' colonial history is dominant over the legal systems' effects. Holding colonial past constant also makes Canon and Roman law (insignificant in Model 1) positively related to land inequality. This means that colonial history (or having no colonial past, for that matter) helped Canon and Roman law systems have less significant association with land inequality<sup>7</sup> – when it is controlled, the inequality increasing impact of Canon and Roman law is revealed. On the other hand, controlling of the colonial past makes Spanish law (insignificant in Model 1) negatively related to land inequality. This means that colonial history paved the way for less significant association between Spanish law and land inequality – when it is held constant, the negative impact of Spanish legal system is revealed.<sup>8, 9</sup> When in addition the level of development is controlled for (Model 5), Islamic law becomes positively related to land inequality. This implies that level of development may have mitigating effect for land inequality in those countries, and when it is held constant, the Islamic legal system becomes positively related to land inequality. All other legal systems are not affected by controlling the level of development. Model 5 also finds that the level of development itself is strongly significant with a positive sign. This is most probably because the global transition from agricultural to industry based economy, as reflected in the higher incomes per capita, has resulted in higher

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<sup>6</sup> R-squared is only suggestive in the IV context.

<sup>7</sup> This effect can be argued to be working in favor of a more equal land distribution.

<sup>8</sup> This effect can be argued to be working against a more equal land distribution.

<sup>9</sup> It must be noted that joint adoption of legal systems and colonial history in the regression also results in changes in the coefficients of colonial history variables. For instance, the coefficient of the British colony variable increases by almost 100%, i.e., from 9.7 to 17.6, remaining strongly significant. This means that, other things being equal, legal systems in the relevant ex-colonies, i.e., mostly English law, have inequality mitigating effect, so that when they are held constant, the inequality increasing effect of the British colonial history is revealed. This effect diminishes, but still holds, when the level of development and independence year are controlled, as the relevant coefficient is still higher by around 50%.

concentration in land ownership. In this model, British, Spanish and Portuguese colonial past are still positively related to land inequality, while French and Dutch colonial past are still insignificant. Finally, Model 6 introduces INDEP to control for the type of colonial institutions. INDEP itself is estimated to be positive but insignificant, while this inclusion does not cause any major change in the results regarding legal systems, colonial past and the level of development. *The above results suggest that colonial past and associated colonial practices overall has a different impact on land inequality than the law systems that the colonizers brought by.* For instance, while Spanish colonial practices resulted in higher land inequality, Spanish legal system had inequality mitigating effect.

Table 4 utilizes the LLSV classification of legal systems. The sample size ranges from 196 to 201 observations. Because legal systems in this context are mutually exclusive, we use British legal system as the base. Model 1 shows the unconditional associations between law systems and land inequality. It is found that the French legal system is associated with significantly higher land inequality than the British system as seen through a higher Gini point of 8.8. On the other hand, German and Scandinavian legal systems have lower land inequality compared to the British system, whereby the difference is 8 Gini points for German system and 17.5 points for Scandinavian system. Socialist law appears to be insignificantly different than the British system. Model 2 controls for colonial past. This practice results in German legal system becoming insignificantly different than the British law system. Note that the countries with German legal system in our sample are Germany, Austria, Switzerland, Japan, South Korea and Taiwan, which were not colonized at any point in time. Thus, this result suggests that absence of colonization helped German law have a negative association with land inequality – when this effect is controlled, German law is no different than British law in affecting land distribution. On the other hand, it appears that British, Spanish and Portuguese colonial past are, other things being equal, associated with higher land inequality and the French and Belgian (only Zaire) systems are with lower inequality. Model 3 controls additionally the level development. This variable itself is estimated with a strongly significant positive sign. In this model, French colonial past becomes insignificantly related to land distribution (negative and significant in Model 1), while other colonial past variables hold their signs and significance. Finally, Model 4 controls the year of independence. This variable itself has a positive and significant sign, indicating that countries that gained their independence later in the past have higher land inequality, *ceteris paribus*. The results regarding legal systems mostly remain intact in this specification. However, French colonial past regains its significance, with a negative sign, implying that countries with more recent independence have experienced higher land inequality due to French colonial history. This is consistent with the extractive institutional arrangements by French colonizers.<sup>10</sup>

A few differences across Tables 3 and 4 regarding the findings on colonial histories worth discussion. In both tables, British, Spanish and Portuguese colonial past are robustly associated with higher land inequality. On the other hand, French colonial past

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<sup>10</sup> This finding is of significant interest. It implies that if the extractive nature of French colonization is held constant, French colonial practices can facilitate more equal land distribution. This is not surprising in view of the three general principles of French civilization: *Liberté, Fraternité, Égalité*.

becomes negative and significant when LLSV based legal systems are used, compared to insignificant effect with the CIA based classification. This implies that more disaggregated legal systems in the relevant ex-colonies may have helped French colonial practices become less in favor of equal land distribution.

The results concerning the year dummies in Tables 3 and 4 also offer a number of interesting insights. First, land inequality in the world is lower by 7-10 Gini points in the 1960-1990 period compared to 1920. Importantly, this result is obtained when the level of development and independence year are held constant. This is understandable because higher levels of development and more recent independence are already found to be associated with higher land inequality so that when they are held constant, the inequality mitigating effect of year dummies becomes stronger. Second, year dummies are more significant in Table 4 where LLSV based legal systems are used. It appears that more disaggregated categorization of legal systems as done by the CIA captures some of the variation captured by the year dummies. In other words, whatever the reason for lower land inequality across countries over time is, the more disaggregated legal systems are able to capture part of that effect. The question here is, why does land inequality decrease over time? This issue will be addressed in a more detailed way when the decile distribution of land is analyzed below, but the most obvious reason seems to be land reforms that were undertaken by some countries.

## 5.2. Decile Distribution of Land

Tables 5 and 6 present the regression results for each decile of the land distribution.<sup>11</sup> While Table 5 uses the CIA based categorization of legal systems, Table 6 adopts the LLSV based classification.<sup>12</sup> A few results strike at the outset. If a particular legal system affects the top decile significantly, it affects (some of the) other deciles in the opposite direction. This is expected because it means that the legal system “redistributes” the land from one group to (an)other(s). The clearcut division here is between the top decile vs other deciles. Another interesting result is that land is not always “redistributed” to lower deciles (i.e., the poorest segments), but sometimes to the middle of the distribution. The amount of land redistributed may be similar across the deciles, but may also differ.

Let us discuss the results in Table 5. The following legal systems have insignificant or almost insignificant effects on the decile distribution of land: Argentine, Ottoman, Italian, Civil, Communist and French. On the other hand, the following legal systems have more egalitarian approach to land distribution as seen through lower share in the top deciles and higher share in the lower deciles: Swedish, Customary, Dutch, English, and Spanish. Among these, the Dutch system is by far the most egalitarian. The top decile (i.e., top 10%) possesses a lower share of land by 34%. This land is “redistributed” to the lowest

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<sup>11</sup> We have repeated the analysis in Tables 3 and 4 with decile-based Land Gini and obtained almost the same results using the percentile-based Land Gini. Therefore, it is safe to proceed directly to explaining the deciles. It is obviously impractical to explain each percentile in land distribution.

<sup>12</sup> First decile corresponds to the lowest 10 percent (poorest) and tenth decile corresponds to the highest 10 percent (richest) in the distribution.

five deciles (i.e., bottom 50%), with the lowest three deciles getting a higher share.<sup>13</sup> The next most egalitarian systems are Swedish and Spanish systems. They differ, however, markedly in terms of the redistribution practice. While both take away around 20% from the top decile, the Swedish system redistributes this amount to the lowest seven deciles, and the Spanish system redistributes it to the middle of the distribution (mostly from 5th to the 8th deciles). Finally, the English and Customary systems are “mildly” egalitarian in the sense that they take away around 6-7% of land from the top decile. Nevertheless, they also differ in terms of the redistribution practice: the Customary system redistributes to 4th to 7th deciles (i.e., the middle of the distribution) in miniscule amounts, while the English system redistributes to 1st, 2nd, 4th, 5th and 8th deciles, also in miniscule amounts. Finally, the Austrian, Canon, Indigenous, Islamic and Roman laws are associated with higher shares of land in top deciles, and hence higher land inequality. The highest top decile is associated with Austrian and Canon law, with about 20% higher share of land. Interestingly, both take away land from the middle to high deciles of the distribution, i.e., not from the lowest deciles at all. On the other hand, Indigenous, Roman and Islamic legal systems are associated with 7-12% higher land share in the top decile. While Indigenous and Roman legal systems take away land from the middle of the distribution, Islamic law takes away land from the lowest five deciles (i.e., bottom 50%).

In terms of colonial past, British, Spanish and Portuguese colonial past are associated with higher land shares in the top decile. The Spanish colonial practices seem by far the most anti-egalitarian, resulting in almost 40% higher land share in the top decile. This land is taken away from all deciles that are lower than the top decile, i.e, from bottom 90% of the land distribution. That is, Spanish colonial practices are really taxing on the rest of the society in favor of a handful of landowners. Further to the point, concerning the amount of land taken away from the bottom 90%, this amount is greater in the higher deciles than the lower deciles. On the other hand, British ex-colonies also have a higher land share in the top decile (by 16%). Although land is taken away from almost all deciles lower than the top decile (bottom 90%), the amount taken away is relatively similar across the deciles. Finally, French colonial practices seem to have insignificant effect on the decile distribution.

Turning to the results in Table 6, German and Socialist legal systems do not differ significantly from the British legal system in affecting the decile distribution of land. On the other hand, the Scandinavian system is more egalitarian than the British system. It is associated with 15% lower land share in the top decile, and this land is redistributed to lowest seven deciles (except the first decile) in similar amounts. The French legal system is found to be less egalitarian than the British system. It is associated with a higher land share in the top decile by 8%, and a lower land share in the 3rd, 4th and 5th deciles. These effects are of relatively modest significance, however.

It is also found that the British, Spanish and Portuguese colonial past are associated with higher shares in the top decile. Both Spanish and Portuguese ex-colonies are associated

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<sup>13</sup> It is not really known whether lower share of land in the top decile and higher share of land in the lower deciles means “redistribution”. In the absence of any other information, however, this interpretation is plausible.

with 23% higher land share in the top decile. While the Portuguese colonial practice takes away land from the 3rd through the 9th deciles, their Spanish counterparts take away land from almost lowest nine deciles (i.e., bottom 90%). As above, the amount of land taken away is higher deciles (such as 7th through 9th) compared to lower deciles. On the other hand, French colonial past is associated with lower top decile (around 11%) and a higher land share in 4th, 5th and 7th deciles (i.e., middle of the distribution).

## 6. Conclusion

Using a new panel data set on land inequality that stretches back to early 1900s, this paper investigates the impact of legal systems on land distribution across 80 countries. It finds that, holding colonial history and the level of development constant, English, Spanish and Dutch law systems are associated with lower land inequality, while countries whose legal systems contain elements of Canon law, Islamic law and traces of early Roman law have higher land inequality. Importantly, Civil law and French law do not exert significant influence on land distribution. There is also evidence that colonial history influences the way in which legal systems affect land distribution. The paper also studies the impact of legal systems on decile distribution of land.

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**Table 1: Legal origins from LLSV and CIA**

Country	LLSV (1998, 1999)					CIA (1990, 2007)																	
	Fre	Eng	Ger	Sca	Soc	Fre	Eng	Bel	Dut	Por	Rom	Isl	Cus /In d	Civ	Spa	Aus	Sw e	Ita	Arg	Com	Can	Ott	
Argentina	Y	N	N	N	N	Y	Y	N	N	N	N	N	N/N	N	N	N	N	N	N	N	N	N	N
Australia	N	Y	N	N	N	N	Y	N	N	N	N	N	N/N	N	N	N	N	N	N	N	N	N	N
Austria	N	N	Y	N	N	N	N	N	N	N	Y	N	N/N	Y	N	N	N	N	N	N	N	N	N
Bahamas	N	Y	N	N	N	N	Y	N	N	N	N	N	N/N	N	N	N	N	N	N	N	N	N	N
Barbados	N	Y	N	N	N	N	Y	N	N	N	N	N	N/N	N	N	N	N	N	N	N	N	N	N
Belgium	Y	N	N	N	N	N	Y	N	N	N	N	N	N/N	Y	N	N	N	N	N	N	N	N	N
Brazil	Y	N	N	N	N	N	N	N	N	N	Y	N	N/N	N	N	N	N	N	N	N	N	N	N
Canada	N	Y	N	N	N	Y	Y	N	N	N	N	N	N/N	N	N	N	N	N	N	N	N	N	N
Chile	Y	N	N	N	N	Y	N	N	N	N	N	N	N/N	N	Y	Y	N	N	N	N	N	N	N
Colombia	Y	N	N	N	N	N	N	N	N	N	N	N	N/N	N	Y	N	N	N	N	N	N	N	N
Costa Rica	Y	N	N	N	N	N	N	N	N	N	N	N	N/N	N	Y	N	N	N	N	N	N	N	N
Czechoslovakia	N	N	N	N	Y	N	N	N	N	N	N	N	N/N	Y	N	Y	N	N	N	Y	N	N	N
Denmark	N	N	N	Y	Y	N	N	N	N	N	N	N	N/N	Y	N	N	N	N	N	N	N	N	N
Dominican Republic	Y	N	N	N	N	Y	N	N	N	N	N	N	N/N	N	N	N	N	N	N	N	N	N	N
El Salvador	Y	N	N	N	N	N	Y	N	N	N	Y	N	N/N	Y	N	N	N	N	N	N	N	N	N
Estonia	N	N	N	N	Y	N	N	N	N	N	N	N	N/N	Y	N	N	N	N	N	N	N	N	N
Ethiopia	Y	N	N	N	N	N	Y	N	N	N	N	Y	Y/N	Y	N	N	N	N	N	N	N	N	N
Fiji	N	Y	N	N	N	N	Y	N	N	N	N	N	N/N	N	N	N	N	N	N	N	N	N	N
Finland	N	N	N	Y	N	N	N	N	N	N	N	N	N/N	N	N	N	Y	N	N	N	N	N	N
France	Y	N	N	N	N	N	N	N	N	N	N	N	N/Y	Y	N	N	N	N	N	N	N	N	N
Grenada	N	Y	N	N	N	N	Y	N	N	N	N	N	N/N	N	N	N	N	N	N	N	N	N	N
Guadeloupe	Y	N	N	N	N	Y	N	N	N	N	N	N	N/N	N	N	N	N	N	N	N	N	N	N
Guatemala	Y	N	N	N	N	N	N	N	N	N	N	N	N/N	Y	N	N	N	N	N	N	N	N	N
Guinea	Y	N	N	N	N	Y	N	N	N	N	N	N	Y/N	N	N	N	N	N	N	N	N	N	N

**Table 1: Legal origins from LLSV and CIA (continued)**

Country	LLSV (1998, 1999)					CIA (1990, 2007)																	
	Fre	Eng	Ger	Sca	Soc	Fre	Eng	Bel	Dut	Por	Rom	Isl	Cus /In d	Civ	Spa	Aus	Sw e	Ita	Arg	Com	Can	Ott	
India	N	Y	N	N	N	N	Y	N	N	N	N	N	N/N	N	N	N	N	N	N	N	N	N	N
Indonesia	Y	N	N	N	N	N	N	N	Y	N	Y	N	N/Y	N	N	N	N	N	N	N	N	N	N
Iran	Y	N	N	N	N	N	N	N	N	N	N	Y	N/N	N	N	N	N	N	N	N	N	N	N
Iraq	Y	N	N	N	N	N	N	N	N	N	N	Y	N/N	N	N	N	N	N	N	N	N	N	N
Ireland	N	Y	N	N	N	N	N	Y	N	N	N	N	N/Y	Y	N	N	N	N	N	N	N	N	N
Italy	Y	N	N	N	N	N	Y	N	N	N	N	N	N/N	Y	N	N	N	N	N	N	N	Y	N
Jamaica	N	Y	N	N	N	N	N	Y	N	N	N	N	N/N	N	N	N	N	N	N	N	N	N	N
Japan	N	N	Y	N	N	N	N	Y	N	N	N	N	N/N	Y	N	N	N	N	N	N	N	N	N
Kenya	N	Y	N	N	N	N	N	Y	N	N	N	Y	Y/N	N	N	N	N	N	N	N	N	N	N
Latvia	N	N	N	N	Y	N	N	N	N	N	N	N	N/N	Y	N	N	N	N	N	N	N	N	N
Lebanon	Y	N	N	N	N	N	Y	N	N	N	N	N	N/N	Y	N	N	N	N	N	N	N	Y	Y
Lesotho	N	Y	N	N	N	N	N	Y	N	Y	N	N/N	N	N	N	N	N	N	N	N	N	N	N
Libya	Y	N	N	N	N	N	N	N	N	N	N	Y	N/N	Y	N	N	N	Y	N	N	N	N	N
Lithuania	N	N	N	N	Y	N	N	N	N	N	N	N	N/N	Y	N	N	N	N	N	N	N	N	N
Madagascar	Y	N	N	N	N	N	Y	N	N	N	N	N	Y/N	Y	N	N	N	N	N	N	N	N	N
Malaysia	N	Y	N	N	N	N	N	Y	N	N	N	N	N/N	N	N	N	N	N	N	N	N	N	N
Mali	Y	N	N	N	N	N	Y	N	N	N	N	N	Y/N	Y	N	N	N	N	N	N	N	N	N
Malta	Y	N	N	N	N	N	N	Y	N	N	Y	N	N/N	Y	N	N	N	N	N	N	N	N	N
Mexico	Y	N	N	N	N	N	N	Y	N	N	N	N	N/N	Y	N	N	N	N	N	N	N	N	N
Morocco	Y	N	N	N	N	N	Y	N	N	N	N	Y	N/N	Y	Y	N	N	N	N	N	N	N	N
Nepal	N	Y	N	N	N	N	N	Y	N	N	N	N	N/Y	N	N	N	N	N	N	N	N	N	N
Netherlands	Y	N	N	N	N	N	Y	N	N	N	N	N	N/N	Y	N	N	N	N	N	N	N	N	N
New Zealand	N	Y	N	N	N	N	N	Y	N	N	N	N	N/Y	N	N	N	N	N	N	N	N	N	N
Nicaragua	Y	N	N	N	N	N	N	N	N	N	N	N	N/N	Y	N	N	N	N	N	N	N	N	N

**Table 1: Legal origins from LLSV and CIA (continued)**

Country	LLSV (1998, 1999)					CIA (1990, 2007)																	
	Fre	Eng	Ger	Sca	Soc	Fre	Eng	Bel	Dut	Por	Rom	Isl	Cus /In d	Civ	Spa	Aus	Sw e	Ita	Arg	Com	Can	Ott	
Norway	N	N	N	Y	N	N	Y	N	N	N	N	N	Y/N	Y	N	N	N	N	N	N	N	N	N
Pakistan	N	Y	N	N	N	N	Y	N	N	N	N	Y	N/N	N	N	N	N	N	N	N	N	N	N
Panama	Y	N	N	N	N	N	N	N	N	N	N	N	N/N	Y	N	N	N	N	N	N	N	N	N
Paraguay	Y	N	N	N	N	Y	N	N	N	N	Y	N	N/N	N	N	N	N	N	Y	N	N	N	N
Peru	Y	N	N	N	N	N	N	N	N	N	N	N	N/N	Y	N	N	N	N	N	N	N	N	N
Philippines	Y	N	N	N	N	N	Y	N	N	N	N	N	N/N	N	Y	N	N	N	N	N	N	N	N
Poland	N	N	N	N	Y	Y	N	N	N	N	N	N	N/N	Y	N	N	N	N	N	Y	N	N	N
Portugal	Y	N	N	N	N	N	N	N	N	N	N	N	N/N	Y	N	N	N	N	N	N	N	N	N
Puerto Rico	Y	N	N	N	N	N	Y	N	N	N	N	N	N/N	N	Y	N	N	N	N	N	N	N	N
Reunion	Y	N	N	N	N	Y	N	N	N	N	N	N	N/N	N	N	N	N	N	N	N	N	N	N
Romania	N	N	N	N	Y	N	N	N	N	N	N	N	Y/N	Y	N	N	N	N	N	Y	N	N	N
Saint Lucia	N	Y	N	N	N	N	Y	N	N	N	N	N	N/N	N	N	N	N	N	N	N	N	N	N
Senegal	Y	N	N	N	N	Y	N	N	N	N	N	N	N/N	Y	N	N	N	N	N	N	N	N	N
South Africa	N	Y	N	N	N	N	Y	N	Y	N	Y	N	N/N	N	N	N	N	N	N	N	N	N	N
South Korea	N	N	Y	N	N	N	Y	N	N	N	N	N	N/Y	Y	N	N	N	N	N	N	N	N	N
Spain	Y	N	N	N	N	N	N	N	N	N	N	N	N/Y	Y	N	N	N	N	N	N	N	N	N
Sri Lanka	N	Y	N	N	N	N	Y	N	Y	N	Y	Y	Y/Y	N	N	N	N	N	N	N	N	N	N
Suriname	Y	N	N	N	N	Y	N	N	Y	N	N	N	N/N	N	N	N	N	N	N	N	N	N	N
Sweden	N	N	N	Y	N	N	N	N	N	N	N	N	Y/N	Y	N	N	N	N	N	N	N	N	N
Switzerland	N	N	Y	N	N	N	N	N	N	N	N	N	Y/N	Y	N	N	N	N	N	N	N	N	N
Taiwan	N	N	Y	N	N	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table 1: Legal origins from LLSV and CIA (continued)**

Country	LLSV (1998, 1999)					CIA (1990, 2007)																	
	Fre	Eng	Ger	Sca	Soc	Fre	Eng	Bel	Dut	Por	Rom	Isl	Cus /In d	Civ	Spa	Aus	Sw e	Ita	Arg	Com	Can	Ott	
Tanzania	N	Y	N	N	N	N	Y	N	N	N	N	N	N/N	N	N	N	N	N	N	N	N	N	N
Thailand	N	Y	N	N	N	N	Y	N	N	N	N	N	N/N	Y	N	N	N	N	N	N	N	N	N
Togo	Y	N	N	N	N	Y	N	N	N	N	N	N	N/N	N	N	N	N	N	N	N	N	N	N
Trinidad and Tobago	N	Y	N	N	N	N	Y	N	N	N	N	N	N/N	N	N	N	N	N	N	N	N	N	N
Tunisia	Y	N	N	N	N	Y	N	N	N	N	N	Y	N/N	Y	N	N	N	N	N	N	N	N	N
Turkey	Y	N	N	N	N	Y	N	N	N	N	Y	N	Y/N	Y	N	N	N	Y	N	N	N	N	N
Uganda	N	Y	N	N	N	N	Y	N	N	N	N	N	Y/N	N	N	N	N	N	N	N	N	N	N
UK	N	Y	N	N	N	N	Y	N	N	N	Y	N	N/N	Y	N	N	N	N	N	N	N	N	N
Uruguay	Y	N	N	N	N	N	N	N	N	N	N	N	N/N	N	Y	N	N	N	N	N	N	N	N
USA	N	Y	N	N	N	N	Y	N	N	N	N	N	N/N	N	N	N	N	N	N	N	N	N	N
Venezuela	Y	N	N	N	N	Y	N	N	N	N	N	N	N/N	N	N	N	N	N	N	N	N	N	N
Vietnam	N	N	N	N	Y	Y	N	N	N	N	N	N	N/N	Y	N	N	N	N	N	Y	N	N	N
Virgin Islands	N	Y	N	N	N	N	Y	N	N	N	N	N	N/N	N	N	N	N	N	N	N	N	N	N
West Germany	N	N	Y	N	N	N	N	N	N	N	N	N	N/Y	Y	N	N	N	N	N	N	N	N	N
Yemen (Arab Republic)	Y	N	N	N	N	Y	N	N	N	N	N	Y	Y/N	N	N	N	N	N	N	N	N	N	Y
Yugoslavia	NA	NA	NA	NA	NA	N	N	N	N	N	N	N	N/N	Y	N	N	N	N	N	Y	N	N	N
Zambia	N	Y	N	N	N	N	Y	N	N	N	N	N	Y/N	N	N	N	N	N	N	N	N	N	N

Note: LLSV stands for La Porta, Lopez-de-Silanes, Shleifer and Vishny (1998, 1999) classification and CIA stands for Central Intelligence Agency classification. Under LLSV, ‘Fre’ denotes French, ‘Eng’ denotes English, ‘Ger’ denotes German, ‘Sca’ denotes Scandinavian and ‘Soc’ denotes Socialist. Under CIA, ‘Fre’ denotes French, ‘Eng’ denotes English, ‘Bel’ denotes Belgian, ‘Dut’ denotes Dutch, ‘Por’ denotes Portuguese, ‘Rom’ denotes Roman, ‘Isl/Sharia’ refers to Islamic and Sharia, ‘Cus/Ind’ refers to Customary and Indigenous, ‘Civ’ stands for Civil, ‘Spa’ stands for Spanish, ‘Aus’ denotes Austrian, ‘Swe’ denotes Swedish, ‘Ita’ denotes Italian, ‘Arg’ denotes Argentine, ‘Com’ denotes Communist, ‘Can’ refers to Canon and ‘Ott’ refers to Ottoman. Cell entries denote: Y (=Yes), N (=No) and NA (=Not Available).

<b>Table 2. Summary Statistics</b>					
<b>Variable</b>	<b>Mean</b>	<b>Max</b>	<b>Min</b>	<b>Std. Dev</b>	<b>N</b>
Land Gini	63.40403	95.6	19.5	17.55046	205
Per Capita Income (\$)	5731.108	21788	458	5043.525	203
Independence Year	1793.853	1990	0	286.2482	204
CIA Argentina	0.014634	1	0	0.120377	205
CIA Swedish	0.029268	1	0	0.16897	205
CIA Austria	0.019512	1	0	0.138655	205
CIA Canon	0.02439	1	0	0.154635	205
CIA Ottoman	0.014634	1	0	0.120377	205
CIA Italian	0.02439	1	0	0.154635	205
CIA Civil	0.521951	1	0	0.500741	205
CIA Communist	0.039024	1	0	0.194127	205
CIA Customary	0.146342	1	0	0.354313	205
CIA Dutch	0.034146	1	0	0.18205	205
CIA English	0.439024	1	0	0.497483	205
CIA French	0.146342	1	0	0.354313	205
CIA Indigenous	0.15122	1	0	0.35914	205
CIA Islamic	0.068293	1	0	0.252865	205
CIA Roman	0.180488	1	0	0.385535	205
CIA Spanish	0.058537	1	0	0.23533	205
LLSV French	0.447761	1	0	0.498505	201
LLSV German	0.109453	1	0	0.312986	201
LLSV Scandinavian	0.089552	1	0	0.286252	201
LLSV Socialist	0.019901	1	0	0.140007	201
British Colony	0.243902	1	0	0.430486	205
French Colony	0.029268	1	0	0.16897	205
Spanish Colony	0.156098	1	0	0.363836	205
Dutch Colony	0.004878	1	0	0.069843	205
Portuguese Colony	0.034146	1	0	0.18205	205
Belgian Colony	0.009756	1	0	0.098531	205

**Table 3. Legal Systems and Land Distribution – CIA Classification**

	(1)	(2)	(3)	(4)	(5)	(6)
	<b>Dependent Variable: Land Gini Index</b>					
CIA Argentina	18.55** (2.01)			-1.745 (-0.20)	-0.054 (-0.007)	0.146 (0.019)
CIA Swedish	-42.11*** (-6.73)			-25.20*** (-4.29)	-26.44*** (-4.91)	-28.79*** (-5.26)
CIA Austria	17.80** (2.24)			15.40** (2.31)	14.70** (2.45)	15.03** (2.52)
CIA Canon	8.590 (1.26)			16.20*** (2.80)	16.42*** (2.98)	14.86*** (2.68)
CIA Ottoman	-7.022 (-0.77)			-1.583 (-0.20)	-1.478 (-0.12)	-2.108 (-0.18)
CIA Italian	4.557 (0.61)			2.075 (0.31)	6.121 (1.00)	4.225 (0.67)
CIA Civil	-8.063*** (-3.21)			-0.0457 (-0.015)	-2.092 (-0.71)	-2.696 (-0.89)
CIA Communist	-13.46** (-2.38)			-4.447 (-0.91)	1.088 (0.23)	-0.932 (-0.20)
CIA Customary	-13.78*** (-4.26)			-8.224*** (-2.97)	-7.204*** (-2.86)	-6.740*** (-2.62)
CIA Dutch	-17.66*** (-2.82)			-25.45*** (-4.21)	-26.74*** (-4.13)	-26.27*** (-4.09)
CIA English	-7.947*** (-3.30)			-8.811*** (-3.71)	-6.835*** (-3.09)	-7.210*** (-3.25)
CIA French	-4.549 (-1.38)			-2.132 (-0.67)	-3.220 (-1.09)	-3.154 (-1.07)
CIA Indigenous	-4.942* (-1.70)			3.495 (1.32)	3.689 (1.54)	3.183 (1.32)
CIA Islamic	0.822 (0.20)			5.741 (1.59)	9.437*** (2.70)	9.959*** (2.82)
CIA Roman	3.658 (1.13)			9.968*** (3.01)	9.318*** (3.11)	8.443*** (2.81)
CIA Spanish	-3.980 (-0.86)			-13.06*** (-2.75)	-14.42*** (-3.33)	-15.09*** (-3.49)
British Colony		9.655*** (3.96)		17.61*** (4.54)	16.52*** (4.62)	14.38*** (3.88)
French Colony		-5.320 (-0.89)		-2.706 (-0.44)	3.512 (0.60)	0.814 (0.13)
Spanish Colony		25.58*** (8.85)		28.68*** (8.50)	31.31*** (10.0)	29.65*** (9.21)
Dutch Colony		-0.870 (-0.063)		8.556 (0.66)	15.05 (1.26)	13.10 (1.10)
Portuguese Colony		25.77*** (4.79)		13.34** (2.19)	16.77*** (3.00)	15.51*** (2.76)
Belgian Colony		-26.47*** (-2.67)		-20.14** (-2.20)	-12.73 (-1.49)	-16.09* (-1.85)
Per Capita Income (\$)			1.965 (1.42)		3.847*** (3.39)	3.700*** (3.27)
Independence Year						3.831 (1.20)
Year 1930	2.080 (0.43)	-0.003 (-0.001)	-0.163 (-0.028)	1.812 (0.44)	0.631 (0.17)	0.528 (0.14)
Year 1950	3.332 (0.66)	-0.712 (-0.14)	6.224 (1.04)	-0.382 (-0.090)	-2.052 (-0.52)	-1.815 (-0.47)
Year 1960	-2.492 (-0.60)	-4.137 (-0.99)	-1.244 (-0.26)	-3.888 (-1.08)	-4.067 (-1.25)	-3.745 (-1.16)
Year 1970	-5.626 (-1.21)	-5.391 (-1.18)	-4.550 (-0.84)	-5.588 (-1.43)	-6.843* (-1.93)	-6.784* (-1.92)
Year 1980	-4.631 (-0.99)	-3.815 (-0.84)	-3.520 (-0.65)	-4.340 (-1.11)	-6.365* (-1.78)	-5.954* (-1.67)
Year 1990	-4.032	-3.676	-3.008	-4.325	-7.032**	-6.658*

Constant	(-0.88) 79.16***	(-0.82) 60.21***	(-0.56) 50.24***	(-1.12) 62.52***	(-1.98) 31.30***	(-1.88) 27.41**
Observations	(18.0) 205	(15.7) 205	(4.16) 201	(13.1) 205	(3.14) 201	(2.43) 200
R-squared	0.47	0.43	0.15	0.64	0.66	0.67

t statistics in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table 4. LLSV based Legal Systems and Land Distribution**

	(1)	(2)	(3)	(4)
<b>Dependent Variable: Land Gini Index</b>				
LLSV French	8.839*** (3.73)	8.876** (2.36)	6.801* (1.95)	8.044** (2.34)
LLSV German	-8.015** (-2.26)	-2.015 (-0.49)	-4.827 (-1.27)	-4.552 (-1.21)
LLSV Scandinavian	-17.49*** (-4.54)	-11.03** (-2.52)	-15.16*** (-3.72)	-16.27*** (-4.07)
LLSV Socialist	-7.841 (-1.06)	-0.548 (-0.077)	1.014 (0.16)	-1.202 (-0.19)
British Colony		9.445*** (2.61)	9.801*** (2.97)	7.556** (2.29)
French Colony		-13.60** (-2.40)	-7.424 (-1.39)	-11.33** (-2.11)
Spanish Colony		16.95*** (5.53)	18.88*** (6.54)	16.07*** (5.42)
Dutch Colony		-9.154 (-0.72)	-3.003 (-0.26)	-6.780 (-0.60)
Portuguese Colony		16.53*** (3.21)	19.94*** (4.17)	17.33*** (3.64)
Belgian Colony		-34.56*** (-3.79)	-23.38*** (-2.71)	-27.62*** (-3.23)
Per Capita Income (\$)			4.836*** (4.57)	4.685*** (4.50)
Independence Year				9.435*** (3.08)
Year 1930	-0.804 (-0.16)	0.0547 (0.012)	0.549 (0.13)	-0.0893 (-0.021)
Year 1950	0.264 (0.049)	-2.006 (-0.42)	-2.620 (-0.59)	-3.058 (-0.70)
Year 1960	-8.648* (-1.95)	-7.187* (-1.81)	-7.229** (-2.01)	-7.491** (-2.12)
Year 1970	-9.346* (-1.92)	-8.424* (-1.95)	-10.40*** (-2.65)	-10.73*** (-2.79)
Year 1980	-9.032* (-1.85)	-7.675* (-1.77)	-10.33*** (-2.61)	-9.967** (-2.57)
Year 1990	-8.000* (-1.67)	-7.139* (-1.68)	-10.58*** (-2.70)	-10.29*** (-2.69)
Constant	70.49*** (16.6)	62.67*** (12.9)	25.13*** (2.71)	10.63 (1.04)
Observations	201	201	197	196
R-squared	0.38	0.53	0.59	0.60

t statistics in parentheses\*\*\* p<0.01, \*\* p<0.05, \* p<0.10

**Table 5. CIA based Legal Systems and Decile Distribution of Land**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	1 <sup>st</sup> Decile	2 <sup>nd</sup> Decile	3 <sup>rd</sup> Decile	4 <sup>th</sup> Decile	5 <sup>th</sup> Decile	6 <sup>th</sup> Decile	7 <sup>th</sup> Decile	8 <sup>th</sup> Decile	9 <sup>th</sup> Decile	10 <sup>th</sup> Decile
CIA Argentina	0.001 (0.044)	0.002 (0.21)	0.003 (0.26)	0.005 (0.44)	0.009 (0.74)	0.004 (0.31)	0.012 (0.65)	-0.013 (-0.60)	-0.056* (-1.84)	0.034 (0.38)
CIA Swedish	0.0211*** (2.96)	0.0344*** (4.46)	0.0325*** (3.99)	0.0405*** (5.63)	0.0348*** (4.17)	0.0345*** (3.40)	0.0302** (2.38)	0.0121 (0.82)	-0.0163 (-0.76)	-0.224*** (-3.54)
CIA Austria	-0.002 (-0.30)	-0.00586 (-0.70)	-0.0113 (-1.27)	-0.0144* (-1.84)	-0.0203** (-2.23)	-0.0162 (-1.46)	-0.0297** (-2.15)	-0.0384** (-2.37)	-0.0595** (-2.54)	0.198*** (2.87)
CIA Canon	-0.0001 (-0.009)	-0.00568 (-0.73)	-0.0127 (-1.54)	-0.0134* (-1.84)	-0.0265*** (-3.12)	-0.0205** (-1.99)	-0.0395*** (-3.07)	-0.0441*** (-2.92)	-0.0470** (-2.15)	0.210*** (3.27)
CIA Ottoman	-0.00334 (-0.21)	-0.00233 (-0.14)	-0.0000839 (-0.0047)	-0.00459 (-0.29)	-0.00551 (-0.30)	0.00268 (0.12)	0.00690 (0.25)	0.0358 (1.10)	0.00236 (0.050)	-0.0319 (-0.23)
CIA Italian	-0.00604 (-0.73)	-0.0107 (-1.20)	-0.00529 (-0.56)	0.000749 (0.090)	0.00263 (0.27)	-0.00597 (-0.51)	-0.00916 (-0.63)	-0.00245 (-0.14)	0.000302 (0.012)	0.0359 (0.49)
CIA Civil	0.00607 (1.53)	0.00621 (1.45)	0.00265 (0.58)	-0.000399 (-0.100)	-0.000816 (-0.18)	0.00128 (0.23)	0.00882 (1.25)	0.00763 (0.92)	-0.00257 (-0.21)	-0.0289 (-0.82)
CIA Communist	-0.00572 (-0.92)	-0.00596 (-0.89)	-0.000460 (-0.065)	0.00940 (1.50)	0.00476 (0.65)	-0.000437 (-0.049)	-0.0101 (-0.91)	0.00446 (0.34)	-0.00899 (-0.48)	0.0130 (0.24)
CIA Customary	-0.00321 (-0.96)	0.00214 (0.59)	0.00394 (1.03)	0.0103*** (3.04)	0.00855** (2.18)	0.0115** (2.41)	0.0182*** (3.06)	0.00934 (1.34)	0.000624 (0.062)	-0.0614** (-2.07)
CIA Dutch	0.0745*** (8.89)	0.0735*** (8.13)	0.0695*** (7.26)	0.0208** (2.46)	0.0192* (1.96)	0.00821 (0.69)	0.0228 (1.53)	0.0219 (1.26)	0.0300 (1.19)	-0.340*** (-4.59)
CIA English	0.00675** (2.34)	0.00537* (1.72)	0.00524 (1.59)	0.00648** (2.23)	0.00848** (2.51)	0.00628 (1.53)	0.00540 (1.05)	0.0111* (1.85)	0.0109 (1.25)	-0.0660*** (-2.58)
CIA French	0.00256 (0.66)	0.00379 (0.91)	0.00244 (0.55)	0.00285 (0.73)	0.00317 (0.70)	0.000973 (0.18)	0.00294 (0.43)	0.0103 (1.28)	0.0121 (1.04)	-0.0411 (-1.20)
CIA Indigenous	0.000647 (0.21)	-0.000236 (-0.070)	-0.00376 (-1.05)	-0.00234 (-0.74)	-0.00747** (-2.03)	-0.0128*** (-2.88)	-0.0125** (-2.24)	-0.0114* (-1.75)	-0.0201** (-2.12)	0.0700** (2.52)
CIA Islamic	-0.0164*** (-3.57)	-0.0158*** (-3.17)	-0.0178*** (-3.38)	-0.00822* (-1.77)	-0.00914* (-1.69)	-0.00421 (-0.64)	-0.0153* (-1.86)	-0.0139 (-1.45)	-0.0187 (-1.34)	0.119*** (2.93)
CIA Roman	-0.00446 (-1.14)	-0.00520 (-1.23)	-0.00636 (-1.42)	-0.0111*** (-2.82)	-0.0151*** (-3.28)	-0.0126** (-2.25)	-0.0171** (-2.45)	-0.0140* (-1.71)	-0.00452 (-0.38)	0.0904*** (2.60)
CIA Spanish	0.00717 (1.27)	0.0105* (1.74)	0.0113* (1.75)	0.00850 (1.50)	0.0187*** (2.83)	0.0221*** (2.76)	0.0364*** (3.63)	0.0353*** (3.00)	0.0422** (2.48)	-0.192*** (-3.85)
British Colony	-0.00805* (-1.66)	-0.00749 (-1.44)	-0.0120** (-2.17)	-0.0163*** (-3.35)	-0.0224*** (-3.95)	-0.0207*** (-3.02)	-0.0180** (-2.09)	-0.0276*** (-2.74)	-0.0296** (-2.03)	0.162*** (3.78)

French Colony	-0.00192 (-0.24)	-0.00530 (-0.61)	-0.00473 (-0.52)	0.00115 (0.14)	0.00524 (0.56)	-0.00198 (-0.17)	-0.000712 (-0.050)	-0.0140 (-0.84)	-0.00916 (-0.38)	0.0314 (0.44)
Spanish Colony	-0.0151*** (-3.60)	-0.0182*** (-4.01)	-0.0238*** (-4.97)	-0.0262*** (-6.19)	-0.0363*** (-7.37)	-0.0432*** (-7.23)	-0.0604*** (-8.08)	-0.0772*** (-8.82)	-0.0897*** (-7.07)	0.390*** (10.5)
Dutch Colony	-0.0557*** (-3.58)	-0.0544*** (-3.24)	-0.0549*** (-3.09)	-0.00544 (-0.35)	-0.00628 (-0.34)	-0.00372 (-0.17)	-0.0344 (-1.24)	0.00399 (0.12)	-0.0399 (-0.85)	0.251* (1.82)
Port. Colony	-0.00856 (-1.17)	-0.00921 (-1.16)	-0.0162* (-1.93)	-0.0132* (-1.79)	-0.0186** (-2.17)	-0.0224** (-2.14)	-0.0253* (-1.94)	-0.0442*** (-2.89)	-0.0673*** (-3.04)	0.225*** (3.46)
Belgian Colony	0.0256** (2.25)	0.0209* (1.71)	0.0105 (0.81)	0.00942 (0.83)	0.0258* (1.94)	0.0198 (1.23)	-0.00382 (-0.19)	-0.0357 (-1.51)	0.00276 (0.081)	-0.0752 (-0.75)
Per Cap. Inc. (\$)	-0.0112*** (-7.58)	-0.009*** (-5.72)	-0.008*** (-4.98)	-0.002 (-1.55)	0.001 (0.42)	0.002 (0.85)	0.001 (0.45)	-0.003 (-1.04)	0.001 (0.28)	0.029** (2.24)
Indep. Year	-0.00464 (-1.12)	-0.00250 (-0.56)	-0.00457 (-0.96)	-0.00262 (-0.63)	-0.00333 (-0.69)	-0.00850 (-1.44)	-0.000668 (-0.090)	-0.00990 (-1.14)	-0.0107 (-0.85)	0.0475 (1.29)
Year 1930	0.00183 (0.38)	0.00357 (0.69)	0.00465 (0.84)	0.00343 (0.71)	-0.000938 (-0.17)	-0.00601 (-0.88)	-0.00446 (-0.52)	-0.0140 (-1.39)	-0.0206 (-1.42)	0.0325 (0.76)
Year 1950	0.00553 (1.09)	0.00883 (1.61)	0.00814 (1.40)	0.00711 (1.39)	-0.00213 (-0.36)	-0.00312 (-0.43)	-0.000701 (-0.077)	-0.0157 (-1.48)	-0.0402*** (-2.62)	0.0322 (0.72)
Year 1960	0.00426 (1.01)	0.00512 (1.13)	0.00494 (1.02)	0.00677 (1.60)	0.00287 (0.58)	0.00332 (0.55)	0.00812 (1.08)	-0.00100 (-0.11)	-0.0163 (-1.28)	-0.0181 (-0.48)
Year 1970	0.0100** (2.17)	0.0119** (2.39)	0.0129** (2.46)	0.0109** (2.35)	0.00743 (1.38)	0.00390 (0.60)	0.00726 (0.89)	0.00318 (0.33)	-0.0260* (-1.87)	-0.0415 (-1.02)
Year 1980	0.0102** (2.19)	0.0106** (2.12)	0.00939* (1.77)	0.00983** (2.11)	0.00155 (0.28)	0.00403 (0.61)	0.00731 (0.89)	0.00235 (0.24)	-0.0208 (-1.48)	-0.0344 (-0.84)
Year 1990	0.0169*** (3.65)	0.0144*** (2.90)	0.0127** (2.41)	0.00852* (1.83)	0.00217 (0.40)	-0.000364 (-0.055)	-0.00171 (-0.21)	-0.00221 (-0.23)	-0.0282** (-2.02)	-0.0222 (-0.54)
Constant	0.103*** (7.01)	0.0852*** (5.37)	0.0936*** (5.56)	0.0485*** (3.27)	0.0441** (2.56)	0.0578*** (2.76)	0.0621** (2.37)	0.152*** (4.95)	0.196*** (4.41)	0.158 (1.21)
Observations	200	200	200	200	200	200	200	200	200	200
R-squared	0.58	0.53	0.52	0.56	0.57	0.55	0.55	0.56	0.43	0.67

z statistics in parentheses  
\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table 6. LLSV based Legal Systems and Decile Distribution of Land**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	1 <sup>st</sup> Decile	2 <sup>nd</sup> Decile	3 <sup>rd</sup> Decile	4 <sup>th</sup> Decile	5 <sup>th</sup> Decile	6 <sup>th</sup> Decile	7 <sup>th</sup> Decile	8 <sup>th</sup> Decile	9 <sup>th</sup> Decile	10 <sup>th</sup> Decile
LLSV French	-0.00534 (-1.03)	-0.00505 (-0.97)	-0.0109** (-2.08)	-0.00824* (-1.94)	-0.0113** (-2.12)	-0.00477 (-0.76)	-0.00236 (-0.30)	-0.0109 (-1.15)	-0.0187 (-1.38)	0.0775* (1.85)
LLSV German	0.0101* (1.79)	0.0108* (1.90)	0.00451 (0.79)	0.00269 (0.58)	-0.000783 (-0.13)	0.00247 (0.36)	0.0150* (1.72)	0.00236 (0.23)	-0.0195 (-1.31)	-0.0277 (-0.61)
LLSV Scandin.	0.00922 (1.53)	0.0192*** (3.17)	0.0180*** (2.96)	0.0250*** (5.06)	0.0199*** (3.22)	0.0242*** (3.32)	0.0336*** (3.61)	0.00973 (0.89)	-0.0135 (-0.86)	-0.145*** (-2.99)
LLSV Socialist	-0.00718 (-0.75)	-0.00583 (-0.61)	-0.00420 (-0.43)	0.0115 (1.47)	0.00804 (0.82)	0.00686 (0.59)	0.0139 (0.95)	0.00889 (0.51)	-0.0175 (-0.70)	-0.0145 (-0.19)
British Colony	-0.00175 (-0.35)	0.000297 (0.059)	-0.00496 (-0.98)	-0.00828** (-2.03)	-0.0124** (-2.43)	-0.00951 (-1.58)	-0.00354 (-0.46)	-0.0206** (-2.27)	-0.0226* (-1.73)	0.0834** (2.07)
French Colony	-0.00112 (-0.14)	0.00109 (0.13)	0.00341 (0.42)	0.0130* (1.95)	0.0226*** (2.72)	0.0158 (1.62)	0.0286** (2.29)	0.0133 (0.90)	0.0171 (0.81)	-0.114* (-1.74)
Spanish Colony	-0.00750* (-1.68)	-0.00736 (-1.64)	-0.00896** (-1.98)	-0.0139*** (-3.80)	-0.0164*** (-3.58)	-0.0248*** (-4.59)	-0.0335*** (-4.88)	-0.0547*** (-6.75)	-0.0651*** (-5.56)	0.232*** (6.44)
Dutch Colony	0.0136 (0.80)	0.0138 (0.80)	0.0107 (0.62)	0.00897 (0.64)	0.00223 (0.13)	-0.0114 (-0.55)	-0.0294 (-1.11)	0.00654 (0.21)	-0.0193 (-0.43)	0.00415 (0.030)
Portug. Colony	-0.0113 (-1.59)	-0.0106 (-1.47)	-0.0125* (-1.73)	-0.0157*** (-2.67)	-0.0211*** (-2.86)	-0.0249*** (-2.86)	-0.0314*** (-2.84)	-0.0516*** (-3.96)	-0.0561*** (-2.98)	0.235*** (4.06)
Belgian Colony	0.0215* (1.67)	0.0235* (1.81)	0.0209 (1.60)	0.0250** (2.36)	0.0446*** (3.36)	0.0394** (2.52)	0.0253 (1.27)	-0.0184 (-0.78)	0.0240 (0.71)	-0.206** (-1.97)
Per Cap. Inc. (\$)	-0.0118*** (-7.53)	-0.0101*** (-6.41)	-0.00961*** (-6.05)	-0.00422*** (-3.28)	-0.000897 (-0.56)	0.000422 (0.22)	0.000383 (0.16)	-0.00375 (-1.32)	0.00269 (0.65)	0.0369*** (2.91)
Indep. Year	-0.00509 (-1.10)	-0.00473 (-1.02)	-0.00703 (-1.50)	-0.00860** (-2.27)	-0.0112** (-2.36)	-0.0165*** (-2.95)	-0.0164** (-2.30)	-0.0208** (-2.48)	-0.0164 (-1.35)	0.107*** (2.86)
Year 1930	0.00271 (0.43)	0.00455 (0.72)	0.00472 (0.74)	0.00536 (1.04)	-0.000451 (-0.070)	-0.00452 (-0.59)	-0.00319 (-0.33)	-0.0133 (-1.16)	-0.0241 (-1.46)	0.0283 (0.55)
Year 1950	0.00699 (1.07)	0.00916 (1.39)	0.00886 (1.33)	0.00840 (1.56)	-0.000912 (-0.14)	-0.00323 (-0.41)	0.00256 (0.25)	-0.0124 (-1.04)	-0.0334* (-1.95)	0.0140 (0.26)
Year 1960	0.0102* (1.92)	0.0119** (2.22)	0.0115** (2.13)	0.0106** (2.44)	0.00561 (1.03)	0.00587 (0.91)	0.0119 (1.45)	0.00181 (0.19)	-0.0145 (-1.04)	-0.0549 (-1.27)
Year 1970	0.0164***	0.0190***	0.0195***	0.0155***	0.0108*	0.00694	0.0116	0.00397	-0.0276*	-0.0761

	(2.84)	(3.27)	(3.33)	(3.26)	(1.81)	(0.99)	(1.31)	(0.38)	(-1.82)	(-1.63)
Year 1980	0.0143**	0.0160***	0.0146**	0.0154***	0.00608	0.00822	0.0124	0.00359	-0.0244	-0.0661
	(2.45)	(2.72)	(2.48)	(3.21)	(1.02)	(1.16)	(1.38)	(0.34)	(-1.60)	(-1.40)
Year 1990	0.0207***	0.0193***	0.0176***	0.0136***	0.00617	0.00346	0.00287	-0.00142	-0.0321**	-0.0502
	(3.59)	(3.33)	(3.01)	(2.88)	(1.04)	(0.50)	(0.32)	(-0.14)	(-2.12)	(-1.08)
Constant	0.109***	0.0945***	0.105***	0.0706***	0.0674***	0.0754***	0.0850***	0.179***	0.199***	0.0155
	(7.09)	(6.10)	(6.72)	(5.58)	(4.26)	(4.04)	(3.58)	(6.39)	(4.91)	(0.12)
Observations	196	196	196	196	196	196	196	196	196	196
R-squared	0.36	0.35	0.38	0.52	0.48	0.48	0.47	0.49	0.34	0.57

z statistics in parentheses  
\*\*\* p<0.01, \*\* p<0.05, \* p<0.1