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Impact of "Legal School" Versus Recent Colonial Origin on Economic Growth

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Why different economies grow at different rates is one of the most important questions in economics. Robert Barro's (1991) seminal paper on economic growth across the world introduced dummies for sub-Saharan Africa and Latin America and found that their coefficients were negative and significant, but did not explain why this was the case. Many empirical studies show that so-called "total factor productivity" accounts for most observed cross-country variations in income levels, yet—although it may well be more important than the accumulation of capital, population growth, and even educational improvement—productivity is "the unexplained part of economic growth" (Easterly and Levine 2002).

One of the reasons for the presence of this "residual" in cross-country comparisons may be that the neoclassical framework ignores institutions, what Douglass North (1991) called "the humanly devised constraints that structure political, economic, and social interaction." These include both "informal constraints (sanctions, taboos, customs, traditions, and codes of conduct), and formal rules (constitutions, laws, property rights)" (North

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1991). Institutions are usually *stable* over time and have a lasting effect that may explain the long-run persistence of discrepancies in economic performance. Two ways of introducing the impact of institutions into standard models of economic growth are presented in appendix 8A. However, this institutional approach has been challenged by John Luke Gallup, Jeffrey Sachs, and Andrew Mellinger (1999), who report that countries that are landlocked (apart from those in Europe) or situated in tropical areas are generally poor, and by Edward Glaeser and colleagues (2004), who claim that most measures of institutional differences are endogenous to economic growth and/or subjective.[1]

Our first aim is therefore to find "markers" of institutional differences between countries that would be both exogenous to economic growth and objective, to test whether differences in economic performance can be attributed to them. We describe the key elements of our investigative approach in the next section. One largely objective way of classifying countries is according to the "school" to which their legal systems belong, and so we test for the impact of "legal school" on real GDP per capita growth rates.

However, it is unclear ex ante which institutions or "complexes of institutions" are key to economic performance. It may be that institutions at a higher level of aggregation than "legal school" determine economic performance.[2] In order to test the hypothesis that a wider set of institutions than "legal school" alone may determine economic growth, we then examine the impact of countries' having been either British or French colonies in the first half of the 20th century (we call this variable "colonial origin").[3] Finally, we also test our institutional explanations against what Gallup and Sachs (2000) have claimed is the strongest environmental candidate for explaining growth differences, the incidence of malaria. In conclusion we discuss the implications of our findings for institutional, geographic, and policy explanations of economic growth.

Investigative Approach

To be sure that we are not picking up spurious relationships, we consistently control in our regressions for a number of environmental and his-

1. They also claim that it is economic policies rather than political institutions that determine the accumulation of human capital and that the latter is the main determinant of growth.

2. Many studies have already examined the impact of more narrowly (functionally) defined institutions (such as the progressiveness of taxation or the restrictiveness of trade or labor-market rules) on economic performance.

3. Appendix table 8A.3 shows the distribution of country observations across the institutional categories. The results of the regressions show that the effects of the two kinds of institutions can be distinguished in the data.

torical variables that the literature suggests are fundamental. However, we do not control for many of the variables commonly used in cross-country growth regressions, such as the growth rate of physical capital and the level of human capital (or their instruments, such as the investment rate or educational enrollment). Nor do we control for measures of good or bad policy, such as an economy's openness to international trade or the rate of inflation. This is because we are looking for the impact of exogenous geographical and deep institutional variables, and if we find these to have an effect on growth, we would expect variables such as openness and physical or human capital stock to be largely endogenous to the institutional variables, and indeed to provide some of the channels through which institutions affect growth. The only exception we make to this rule is the use of an index of the incidence of war, because of its huge destructiveness and the lack of clarity as to its causes.

Cross-country high population density in coastal areas is positively correlated with higher GDP per capita, while high population densities in interior regions have a negative correlation. The higher development of coastal areas is explained by the significant increase in transport costs for landlocked regions. Gallup, Sachs, and Mellinger (1999) present two constant returns models (one with intermediate products and one without) in which transport costs affect not only levels of GDP per capita but also their growth rates.[4] To control for such effects we introduce the proportion of a country's population living within 100 kilometers of the coast as an explanatory variable.

Jared Diamond (1997) and Paul Bairoch (1992) argue that tropical regions have been unable to adopt modern crop technologies developed in temperate areas. Tropical regions are also severely affected by diseases. To control for these effects we have used the percentage of a country's territory that lies in the tropics.

It has been argued that one of the major causes of tropical underdevelopment is the high incidence of malaria. Sachs (2003) provides indicators for the proportion of a country's population that is exposed to malaria falciparum, the most dangerous form of malaria. Could initial incidence of malaria explain the differences in growth between countries in a subsequent period? Here one must be careful about the question of endogeneity, as richer countries can afford to fight malaria more effectively. We discuss the possible role of malaria in explaining growth differences between various groups of countries.

Our two historical control variables are, first, an index (from Easterly and Levine 1997) indicating whether a country suffered from war (the variable takes a value of 1 for each decade in which war occurred on the territory of the country, with the exception of the 1990s, for which we do not have information); and second, the natural log of real GDP per capita

4. Diminishing returns models of the Solow type cannot generate such an outcome.

in 1960 at purchasing power parities (as a measure of the amount of growth resulting from the convergence of real GDP per capita levels).

In using objective "markers" of current or recent institutional differences between countries we differ from the seminal papers by Daron Acemoglu, Simon Johnson, and James Robinson (2001, 2002) and Acemoglu and Johnson (2003), which use a distant hypothesized cause of institutional differences (settler mortality at the start of European colonization), which is objective, as an instrument for a subjective measure of current institutions (an index of perceived risk of expropriation). We feel justified in our return to a simpler approach by David Albouy's work (2005), which shows that the data used by Acemoglu and colleagues suffers from manifold weaknesses that seriously undermine their results. Moreover, whereas we are concerned with the recent medium term (1960–95), Acemoglu and coauthors attempt to explain very long-term growth measured in centuries, in spite of the fact that modern economic growth began centuries earlier in some of the countries they examine than in others.[5]

Legal School as a Determinant of Economic Performance

Theoretical Background

According to Richard Posner (1973), the economic efficiency of common law is due to the ability of judges to adapt old rules and create new ones suitable for new and difficult-to-predict circumstances. Within these evolving rules, the principle of precedent and the ability of higher courts to make decisions that bind lower ones mean that the common law provides more stability and predictability. Paul Mahoney (2001) points out that "In the common-law system the judge is an independent policy maker occupying a high-status office, whereas in the civil-law system the judge is a (relatively) low-status civil servant without independent authority to create legal rules. This difference . . . fragments power more in a common law system." Such so-called horizontal fragmentation of power has been found to produce less economic redistribution (Persson, Roland, and Tabellini 2000).[6] Rafael La Porta and colleagues (2004) find that, thanks to greater judicial independence, common law countries have more "economic freedom" (i.e., protection of property and contract rights) than others.

Friedrich Hayek (1960) argued that the common law is superior to the civil law in its economic effects, not so much because of substantively dif-

5. Since we look *only* at colonies with little European settlement and high settler mortality, the instruments Acemoglu, Johnson, and Robinson use have little variability and are of little use in our regressions. As a result, we have decided not to use them.

6. "Vertical" fragmentation is fragmentation between different levels in a federal structure.

ferent legal rules but because of their differing assumptions about the rights of the individual and the state, which go back to the philosophical writings of Locke and Hume on the one hand and Rousseau on the other. Mahoney (2001) claims that this philosophical difference has a structural impact: "A central feature of the civil law is a sharp distinction between 'private' law (which governs relations between citizens) and 'public' law (which governs relations between the citizen and the state)." As a result, in the French civil law tradition, ordinary courts are not allowed to review government action, and although specialized "administrative" courts exist, they are under the "direct supervision of the executive (and their) judges are trained at administrative schools alongside future civil servants."[7] Furthermore, although "private" law places a strong emphasis on the protection of property and contracts, "public" law stresses the rights of the state to pursue social or national goals.[8]

La Porta and colleagues (1997) found that "countries with poorer investor protections, measured by both character of legal rules and the quality of law enforcement, have smaller and narrower capital markets." Accordingly, countries belonging to the "French civil law school" (a subset of all civil law countries) have the weakest investor protection and the least developed financial systems. Ownership is more concentrated in such countries because of poor shareholder rights, while corporate valuation is lower. Anglo-Saxon "common law" countries tend to have the opposite characteristics. We therefore call the view that common law leads to better economic performance than French civil law the "Hayek–La Porta hypothesis."[9]

Yet legal scholars have pointed out that civil law courts do in practice often follow precedent and the decisions of higher courts and that in some civil law jurisdictions, high courts give "guidance" on how statutes and codes should be applied. Moreover, common law courts (especially in the United States) often promote wealth-destroying and rent-seeking litigation (Tullock 1997). Thus the difference in the impact of the two legal schools on economic performance may be more apparent than real and certainly requires empirical testing.

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7. In common-law jurisdictions the same courts judge both types of cases.

8. Such deep structural assumptions in the law may be very important given the large numbers of lawyers in the executive and legislative branches in many countries, so that the influence of Rousseau's political philosophy on the law comes full circle and influences the assumptions of lawyer-politicians.

9. Although they point to differences in the "quality of government" between the two groups of countries (1999) and to the findings by King and Levine (1993) and subsequent authors indicating that financial development promotes economic growth, La Porta et al. do not themselves claim that the "school" a country's legal system belongs to influences its economic performance.

Investigative Approach

In his empirical investigation into the economic impact of the common law, Mahoney (2001) found that over the period 1960–90 common law countries in general had significantly higher growth than civil law countries. He regressed growth of GDP per capita on whether a country uses the common law and a number of control variables, such as levels of schooling at the start of the period (a measure of human capital), investment rate (a measure of physical capital), inflation (a measure of sound macroeconomic policy), and exports per GDP (a measure of openness and thus of good macro and microeconomic policy). He also controlled for a number of more fundamental variables, such as the degree of ethnic fractionalization, the religious composition of the population, and whether a country is in Latin America or Africa.

We find this approach wanting as a way of identifying institutional effects, because the control variables used are (1) likely to be endogenous to the institutional differences being tested for, as discussed in the last section, (2) rather crude (the two "continental" dummies), or (3) not statistically significant (discussed later). Instead, we use only the geographical and historical control variables described above.

Furthermore, unlike Mahoney, who compares the common law to all civil law countries, we limit ourselves to the impact of countries belonging either to the common law or the "French civil law" school. This is because La Porta and colleagues (1997) find the common law to be the most supportive of financial development and the French civil law the least supportive. If effects on growth are to be found, they should be found here. Also, these two legal schools are present in the largest number of countries. Finally, it is better to use the "legal school" to which all former French colonies belong rather than a wider one so that any differences in the impact of "legal school" and "colonial origin" cannot be ascribed to the inclusion in the civil law category of countries with a legal system that differs in some important respects from the French one.[10]

Data and Results

We constructed a dataset of 119 countries for which we had both growth rates of real GDP per capita over the period 1960–95 and data for our en-

10. La Porta et al. (2004) find German and Scandinavian civil law systems to have better investor protections than French civil law systems. This is also the case for Romano-Dutch law (Wood 1995). Former British colonies all use the common law, with a few exceptions that use French civil law (e.g., Mauritius).

vironmental control variables.[11] We classified countries' legal school in much the same way as La Porta and colleagues (1997) with three exceptions: (1) we reclassified some countries when we considered the classification of La Porta and colleagues (1997, 1999, 2004) to be mistaken (for instance, we excluded Romano-Dutch law countries from the French school); (2) on the basis of Philip Wood (1995), the online *CIA Factbook*, and searches for individual countries, we extended our classification to countries not covered by La Porta and colleagues (Djankov et al. 2002);[12] and (3) in our main regressions we excluded Hong Kong and Singapore as they are extreme outliers in terms of real GDP per capita growth (although retaining them gives very similar results in our key equation, 8.3).

Thus we have 55 French civil law countries, 33 common law countries, and 31 unclassified countries (which constitute the omitted category and include German and Scandinavian civil law countries, Romano-Dutch law countries, ex-socialist countries, and any other countries whose legal school is ambiguous). See appendix table 8A.2.

The results indicate clearly that belonging to the "French civil law" school reduces a country's growth rate of per capita GDP both highly significantly and by a large amount when we control for the incidence of war, the share of territory located in the tropics, the share of population near the sea, and the impact of convergence:[13]

$$\begin{aligned} \text{Growthrpc6095} = {} & 1.036 - 0.071\text{*War} - 0.668\text{*Tropicar} + 0.598\text{*Pop100km} \\ & (0.000)\ (0.125) \qquad (0.000) \qquad\quad (0.000) \\ & - 0.368\text{*Frenchcivil} - 0.232\text{*Commonlaw} - 0.184\text{*Convergence} \\ & (0.001) \qquad\quad (0.057) \qquad\quad (0.004) \end{aligned} \tag{8.1}$$

Adjusted $R^2 = 0.406$, 119 observations

where dependent variable = real per capita GDP growth 1960–95; War = an index equal to 1 for each decade the country was involved in foreign or civil war; Tropicar = the proportion of a country's land area between

11. Data on GDP per capita and GDP per capita growth are from the World Bank database. The data for the share of the population lying within 100 km of the sea and for the share of a country's territory lying in the tropics are taken from Gallup, Sachs, and Mellinger (1999). The data are available only for countries with over 1 million inhabitants (108 countries). We were able to extend the sample to another 13 countries (marked by an * in appendix table 8A.2).

12. This is a larger group, which subsumes the group La Porta et al. (1997) use.

13. From an econometric point of view, there do not seem to be major problems with heteroskedasticity in our regressions. Residuals are normal in all regressions, hence the significance tests should be valid. The only issue is that of possible multicolinearity between the legal and colonial dummies, as discussed later.

the Tropics; Pop100km = proportion of a country's population living within 100 km of the sea; Frenchcivil, dummy = 1 for French legal origin; Commonlaw, dummy = 1 for common law countries; Convergence = natural log of GDP per capita in 1960.

Although common law countries do grow faster than French civil law ones, so that the difference in growth rates between the two groups goes the way the Hayek–La Porta hypothesis would lead us to expect, this difference is not significant (p-value: 0.181).[14]

Thus in contrast to Mahoney's (2001) results, we find that the Hayek–La Porta hypothesis does not perform well in the presence of reasonable environmental and historical control variables, even when we compare growth only in the two legal schools between which we would expect to find the clearest difference in outcome. Moreover, when we replicate Mahoney's key regression, we find the impact of legal school on growth not to be significant (table 8.1a). Using Mahoney's (mainly intermediate) control variables (investment, secondary school enrollment, and population growth) and a dummy for civil law countries, we reran his regression on a subsample of common and civil law countries from our database. We found the coefficient on the dummy for all (not just French) civil law countries to be highly insignificant (p-value: 0.729). When we mimicked Mahoney's approach, by regressing per capita growth on our own "fundamental" control variables using a subsample of only common law and French civil law countries (87 countries) and using only a common law dummy to test the effect of legal school on growth, we again found that common law was not significant (p-value: 0.179) and the coefficient, though positive, was rather small (table 8.1b).

Our results also reject the hypothesis of Djankov and colleagues (2002) that worse economic performance in countries with a legal system based on French civil law are the result of other "statist" institutions that are "complementary" to this legal system. This is because countries with French civil law but without a history of recent French colonization do not perform worse than countries that use the common law.

Colonial Heritage

A possible explanation for the disappointing result regarding the economic impact of "legal school" is that a more comprehensive set of institutions than just the legal system influences economic performance. But

14. All control variables have the expected signs. Growth should be lower for countries with more war, a larger proportion of their territory in the tropics, and a higher initial level of GDP per capita, while it should be higher for those with a larger proportion of their population close to the sea.

Table 8.1a Replication of key regressions excluding the "other countries" category

Variable	Regression 1	Regression 2	Regression 3	Regression 4
Constant	2.013	1.616	2.063	0.257
	(0.000)	(0.000)	(0.000)	(0.265)
War				–0.040
				(0.361)
Pop100km				0.372
				(0.002)
Tropicar				–0.579
				(0.000)
Civil law	–0.079	–0.334		
	(0.538)	(0.729)		
Average investment rate, 1960–92		0.0409		3.777
		(0.000)		(0.000)
Secondary school enrollment, 1960		0.004		–0.001
		(0.374)		(0.891)
Population growth, 1960–90		–0.169		0.095
		(0.060)		(0.541)
Convergence		–0.0093		–0.262
		(0.004)		(0.003)
British common law				–0.189
				(0.225)
French civil law				–0.067
				(0.535)
British colonies			–0.075	0.228
			(0.654)	(0.1578)
French colonies			–0.527	–0.211
			(0.005)	(0.135)
Adjusted R^2	–0.006	0.425	0.084	0.559
Difference between British and French colonies (p-value)			0.028**	0.021**
Difference between French civil law and British common law (p-value)				0.436
Number of observations	98	89	94	107

Note: Dependent variable is growth of GDP per capita, 1960–92. p-values are in parentheses.

** = significance at the 5 percent level. Shown only for the most important values.

how would one identify countries that share a wider set of institutions than just their legal system? We decided to explore the possibility that a common colonial past might prove an important and statistically significant determinant of growth.

Table 8.1b Differences in growth between British common law and French civil law countries

Variable	Regression 1	Regression 2	Regression 3	Regression 4
Constant	0.396	0.340	0.695	0.728
	(0.000)	(0.000)	(0.000)	(0.000)
War				–0.057
				(0.266)
Population living within 100km of the coast			0.473	0.458
			(0.001)	(0.002)
Tropical share of area			–0.728	–0.712
			(0.000)	(0.000)
Common law	0.179	0.154	0.130	0.132
	(0.143)	(0.189)	(0.186)	(0.179)
Convergence		0.190	–0.085	–0.090
		(0.005)	(0.236)	(0.209)
Adjusted R^2	0.013	0.092	0.367	0.369
Sample size (French civil law and English common law countries)	87	87	87	87

Note: Dependent variable = growth of GDP per capita, 1960–95. p-values are in parentheses.

Table 8.1c Differences in growth between former French and British colonies

Variable	Regression 1	Regression 2	Regression 3	Regression 4
Constant	0.176	0.187	0.478	0.485
	(0.155)	(0.141)	(0.020)	(0.022)
War				–0.014
				(0.863)
Population living within 100km of the coast			0.612	0.605
			(0.012)	(0.016)
Tropical share of area			–0.726	–0.727
			(0.000)	(0.000)
British colonies	0.412**	0.396**	0.372***	0.378***
	(0.011)	(0.018)	(0.007)	(0.009)
Convergence		0.057	–0.214	–0.214
		(0.644)	(0.128)	(0.132)
Adjusted R^2	0.112	0.097	0.407	0.393
Sample size (former French and British colonies)	48	48	48	48

Note: Dependent variable is growth of GDP per capita, 1960–95. p-values are in parentheses.

, * = significance at the 5 and 1 percent levels, respectively. Shown only for the most important values.

Theoretical Background

The fact of countries having been colonies of a single colonial power is a possible indicator of shared institutions between them, since the imperial powers tended to implant similar institutions across their colonies, and even after independence in the second half of the 20th century, former colonies tended to copy new institutions from the metropolis. This imposition of institutions was largely exogenous to the precolonial development of the territories concerned.[15] Furthermore, colonial borders often cut across ethnic communities and ecosystems, grouping together areas with different climate, traditions, and religions; for example, British and French colonies alternated along the coast of West Africa.

The patterns of colonization adopted by various European powers were different at many points. Historical studies suggest that the differences between British and French colonies were particularly stark and went well beyond legal origin. In French colonies, the ideal of assimilation derived from "the constitutional relationship between colonies and metropolis . . . [and] the republican principles of 1789. The republic was one and indivisible: Colonies were an intrinsic part of it . . ." (Fieldhouse 1966, 308).[16] The administrative structure, civil liberties, taxes, and tariffs were supposed to be identical, and there was no separate colonial military. In addition, the French administration tried to speed the establishment of modern infrastructure (such as railways) and to improve native agriculture.

French colonies were also ruled in a more centralized way than British colonies.[17] The French system of direct rule in the colonies meant that a hierarchical system of civil servants was organized (Isnard 1971, 109): Native rulers could be promoted, transferred, and dismissed much like ordinary civil servants but could maintain their authority only at the village level (Miles 1988). Alice Conklin (1998) quotes a French civil service report arguing that "[f]or a long time yet it will be necessary for our subjects to be brought to progress against their will."[18] However, such intervention

15. Except that territories with well-organized preexisting states and with a higher level of technology were less likely to be colonized.

16. This is reflected in the fact that all French colonies in sub-Saharan Africa except two became independent on the same day (when the "French Union" was transformed into the "French Community" in 1960). British colonies in Africa, on the other hand, achieved independence over a period of nine years.

17. While the contiguous British territories in East and South Africa were organized as separate colonies and protectorates, the French preferred the unified blocks of French West Africa and French Equatorial Africa.

18. The idea expressed in a directive was "to liberate the slaves, to ruin the great commands, to eradicate feudal vestiges."

was often disruptive and included forced labor, state regulation of peasants' crop choice, relocation of villages, and conscription.[19]

The goal of British policy, on the other hand, was to ensure the cheap and flexible administration of the colonies (Isnard 1971, 110). Local inhabitants were to preserve much of their autonomy and of their traditional institutions under a system of indirect rule. The ideas behind indirect rule were less idealistic than France's *mission civilisatrice*. While France offered the possibility of representation in the French Parliament (although this was extremely limited before the Second World War), Britain relied on local elected bodies such as town councils and later on legislative councils for individual colonies.[20]

Peter Geschiere (1993) gives an apposite microexample of the different approaches in the two empires, looking at French and British policies in previously chiefless areas in Cameroon. The French were "as quick as the British" in creating *chefs coutumiers*. However, "For the French, coercion was the only way to solve . . . problems. . . . The Maka still tell gruesome stories about the ferocity of the chiefs in executing official orders, especially during the inter-war years." The newly established chiefs had no judicial power and were expected only to put into practice the directives of the colonial administration, a policy that had a clear impact after independence in 1960: "The role of the Maka chiefs in modern politics came to a definite end. . . . Surprisingly few chiefs' sons had had sufficient schooling to join the elite. Most of the leading figures in regional politics since the 1960s have been 'new men', not related to the chiefs' families. . . . French authoritarian policy left the chiefs little scope to legitimize their position in the eyes of the Maka. To them the chiefs remained the ruthless executors of highly unpopular government measures."

In contrast, Geschiere (1993) reports that "The present position of the chiefs among the Bakweri in the former British southwest Cameroon is strikingly different." The British focused on strengthening the authority of the chiefs, who had judicial power and whose main role was maintaining law and order and local traditions. Thus "the British system of indirect rule allowed the chiefs more scope to strengthen their position than the French policy. . . . These chiefs remained more than mere executive organs of the State." And after independence Bakweri chiefs maintained some of their previous authority; for example, the succession of a long-lived chief by his son in the 1980s got a lot of support from the local population.

In British colonies, not only was common law probably more suited to local needs (because of its less formalistic practices and its stress on verbal

19. The *prestation* was established at 12 days per year. In theory, this work had to be remunerated at market rates.

20. Voting rights were severely restricted in the case of British territories (mostly to Europeans), while the Senegalese towns and the French Caribbean had universal male suffrage.

contracts and evidence), but also tribal law was applied in cases where both parties were natives or where one party was a native and "the strict letter of the English law would involve injustice" (Asmis 1912).[21] There were also *native tribunals* for minor offenses and "all complaints as to ownership or possession of (native) land" (Asmis 1913). In French colonies, "assimilation" meant that a single body of legislation was used everywhere.[22] Also, British adherence to free trade meant that British colonial economies were more exposed to world competition than French ones.

The differences between the two empires were possibly most striking in education. A history textbook used in colonies in Africa and Indochina famously started with the words "*Nos ancêtres les Gaulois étaient roux*. . ." ("Our ancestors the Gauls were red-haired . . ."). In contrast, the Advisory Committee on Native Education in the British Tropical African Dependencies argued in its report that "the central . . . problem lies in finding ways to improve what is sound in the indigenous tradition. Education should strengthen . . . responsibility to the tribal community, and . . . be related to the . . . daily experience of the pupils" (quoted in Grier 1999). Grier continues: "Students in British Africa were, for the most part, taught in their own languages and in their tribal villages . . . (while) in the French system most students were boarded . . . (and) were required to speak French (only). . . ." As a result, Corbett (1972) found that, whereas three-quarters of pupils in British Africa completed primary education, only one-third did so in French Africa.

Perhaps the most tangible sign of the different effects of the two systems of colonial rule is the movement of population across borders. Anthony Asiwaju (1976) documents a steady migration of the population from the Côte d'Ivoire to the Gold Coast. Geographic conditions are similar in the two territories and migrants often belonged to ethnic groups divided by the new border; thus the difference was due to the institutions introduced by colonial rulers. The main reasons for discontent on the French side seem to have been conscription into the army, forced labor, higher taxes, and administrative intrusion into peasants' crop selection.

Thus it is possible that the institutions bequeathed before and upon independence by the colonial empires (or imported from them after independence) differed considerably across the imperial powers.

Data and Results

We therefore decided to test whether having a British or French colonial past had a discernible impact on economic growth when we controlled for

21. Although the principal law used was English law supplemented by the special laws of the colony.

22. Although Muslims were allowed to use their own family law.

the same environmental and historical variables as in equation 8.1. As with the two legal schools, we limited ourselves to these two imperial powers since they had the largest number of colonies. It is important that the effects of the two kinds of institutions (legal school and colonial origin) *can* be clearly distinguished in the data (see equation 8.3 and subsequent tables). Appendix table 8A.3 shows the distribution of country observations across the institutional categories.

To qualify as ex-colonies, countries need to have been under British or French rule continuously from 1910 to 1948.[23] The purpose is to exclude ex-colonies of settlement (e.g., Australia, Canada, and the United States) and countries that were under British and French rule only briefly in the interwar period (e.g., Iraq and Syria). We thus keep as ex-colonies only those British and French dependencies where a wide range of common institutions were in place sufficiently long, and sufficiently recently, for them to affect post-1960 economic growth.[24] We omitted all remaining countries.

We found that having been a French colony has a very significant and large negative effect on growth, whereas having been a British colony has no such effect:

$$\begin{aligned} \text{Growthrpc6095} = {} & 1.013 - 0.118\text{*War} - 0.732\text{*Tropicar} + 0.533\text{*Pop100km} \\ & (0.000)\ (0.0175) \quad (0.000) \quad (0.000) \\ & - 0.505\text{*Frenchcol} - 0.037\text{*Britcol} - 0.246\text{*Convergence} \\ & (0.001) \quad (0.731) \quad (0.000) \end{aligned} \tag{8.2}$$

Adjusted $R^2 = 0.421$, 119 observations

Not surprisingly, the coefficients for British and French colonial origin are highly significantly different from each other (p-value: 0.001). Again, the control variables all have the expected signs and are very significant, and the adjusted R^2 is quite high (and slightly higher than for the regression using legal school). On average, real GDP per capita in ex-British colonies increased 1.3 percent per annum more than that of ex-French colonies during 1960–95, after controlling for environmental variables, war,

23. Countries in Africa that had been German colonies but continued as British or French colonies until 1960 (e.g., Tanzania and Togo) were retained as British or French colonies.

24. Grier (1999) and Bertocchi and Canova (2002) run regressions that purport to test the differential impact of colonial origin on growth. However, neither study distinguishes between "colonial origin" and "legal school" as we do, and both in fact test for "legal school" rather than "colonial origin" as we define the terms. This is because they include former Spanish colonies in Latin America and former British "colonies of settlement" like the United States in their regressions. Furthermore, like Mahoney (2001), both studies use potentially endogenous control variables (government consumption, inflation, and education in the case of Grier and the investment ratio and education in the case of Bertocchi and Canova, although the latter also use ethnic fractionalization).

and convergence. This is equivalent to a cumulative difference over the period of 60 percent.[25]

The presence of the two environmental variables is particularly important in this regression as it helps to control for any selection bias by which Britain, as the stronger imperial power, may have obtained the economically more productive colonies at the time of conquest. Nor are former British colonies likely to have benefited particularly during the 1960–95 period from their trade links with Britain. Although Britain was still richer than France at the beginning of our period, over the period as a whole it was poorer, and French growth was higher than British for most of the period.

When we test for the impact of legal school and colonial origin together, we again find that the impact of the French civil law and the common law are statistically indistinguishable (the p-value of the difference between the two coefficients is 0.521). These results are thus at variance with the Hayek–La Porta hypothesis:[26]

$$\begin{aligned}\text{Growthrpc6095} = {} & 1.110 - 0.118*\text{War} - 0.657*\text{Tropicar} \\ & \quad (0.000)\ (0.015) \qquad (0.000) \\ & + 0.541*\text{Pop100km} - 0.265*\text{Frenchcivil} - 0.362*\text{Commonlaw} \\ & \quad (0.000) \qquad\qquad (0.023) \qquad\qquad (0.031) \\ & - 0.394*\text{Frenchcol} + 0.152*\text{Britcol} - 0.210*\text{Convergence} \qquad (8.3) \\ & \quad (0.008) \qquad\qquad (0.348) \qquad (0.002)\end{aligned}$$

Adjusted $R^2 = 0.446$, 119 observations

On the other hand, while the British colonial origin dummy is not at all significantly different from zero, the French colonial dummy is highly significant, negative, and large. Not surprisingly, then, the *difference* between the colonial dummies is highly significant (p-value of 0.005). It is also large (about 0.55), making it about the same size as in equation 8.2, which gives a similar difference in growth rates between the two groups of ex-colonies (1.6 percent per annum, 70 percent over the period).

Tests of Robustness

As further tests of the robustness of our findings, we ran our key regression (equation 8.3) with a number of potential fundamental historical variables, which we added sequentially (table 8.2). We find the value of the ethnolinguistic fractionalization index for 1960 to be insignificant when inserted into our main equation, and the results for the significance of the differ-

25. It is worth remembering that former British colonies had a higher initial average income per capita in 1960 than did French ex-colonies (appendix table 8A.1).

26. The negative impact of common law is actually *larger* than that of civil law.

Table 8.2 Tests of robustness

Variable	Ethnic fractionalization	Religious shares	OECD dummy	Sub-Saharan Africa
Constant	1.164	1.310	1.098	1.221
	(0.000)	(0.000)	(0.000)	(0.000)
War	–0.095	–0.113	–0.114	–0.110
	(0.044)	(0.016)	(0.030)	(0.020)
Pop100km	0.459	0.552	0.544	0.400
	(0.000)	(0.000)	(0.000)	(0.002)
Tropicar	–0.661	–0.663	–0.655	–0.560
	(0.000)	(0.000)	(0.000)	(0.000)
Elf60	–0.161			
	(0.364)			
Catholic		0.085		
		(0.675)		
Protestant		–0.784		
		(0.002)		
Muslim		–0.231		
		(0.185)		
OECD			0.044	
			(0.685)	
Sub-Saharan Africa				–0.367
				(0.004)
Frenchcivil	–0.219	–0.527	–0.261	–0.255
	(0.061)	(0.001)	(0.039)	(0.022)
Commonlaw	–0.335	–0.482	–0.370	–0.370
	(0.042)	(0.004)	(0.007)	(0.026)
French colony	–0.364	–0.147	–0.391	–0.245
	(0.016)	(0.423)	(0.014)	(0.105)
British colony	0.182	0.247	0.167	0.208
	(0.262)	(0.138)	(0.253)	(0.189)
Convergence	–0.211	–0.158	–0.218	–0.251
	(0.001)	(0.025)	(0.001)	(0.000)
Adjusted R^2	0.474	0.491	0.440	0.482
Difference				
Legal (p-value)	0.450	0.799	0.369	0.456
Colonial (p-value)	0.005***	0.067*	0.001***	0.013***
Sample size	114	119	119	119

Note: Dependent variable = growth of GDP per capita, 1960–95. Elf60 is the value of the ethnolinguistic fractionalization index for each country in 1960. Catholic, Muslim, and Protestant are the shares of the population of each country belonging to each of these religions. The data for ethnolinguistic fractionalization and for the shares of different religious groups are taken from La Porta et al. (1999).

ences between the two pairs of institutional dummies remain qualitatively the same (i.e., the difference between the legal school dummies is very insignificant, while that between the colonial origin dummies is highly significant). We get similar results when the percentages of Catholics, Mus-

lims, and Protestants in the population of each country are inserted (together), although the difference between the colonial origin dummies is somewhat less significant (p-value: 0.067); moreover, only the coefficient for the percentage of Protestants is significant.[27] We again get the same results when we add a dummy for the countries of sub-Saharan Africa or a dummy for the original OECD members (based on the idea that the impact of legal school may be different in rich countries).[28]

If we confine the sample to British and French colonies only (along the lines of the strategy used by Mahoney for "legal schools"), while using our "fundamental" control variables only, we again find that British colonization has a positive and highly significant impact on growth (table 8.1c). When we mimic Mahoney's approach by using a sample that excludes the "other countries" (i.e., those that are neither British nor French colonies and have neither common nor French civil law systems) and use both our "fundamental" and his "intermediate" control variables, we again find that the difference between "legal schools" is quite insignificant (p-value: 0.436), while that between former British and French colonies is very significant (p-value: 0.021). Finally, "colonial origin" has a significant impact on economic growth in all subperiods when we split the period into either two (1960–75, 1976–95) or three (1960–70, 1971–80, 1981–95) subperiods.

Institutions Versus Malaria?

When we add the incidence of malaria falciparum as an explanatory variable to equations 8.1 and 8.2, our results change considerably.[29] The difference between British and French ex-colonies, though still significant, is now the same as that between common law and French civil law countries (p-value: 0.035). When we add malaria to equation 8.3, the differences between both sets of institutional variables become very insignificant.

However, we have data on the incidence of malaria for only 104 countries (compared with 119 for the larger sample).[30] Moreover, there is the

27. We ignore the percentage of Hindus, as they were numerous only in a limited number of colonies, while Buddhists and Confucians were present only in small numbers in a few colonies. The data for ethnolinguistic fractionalization and for the shares of different religious groups in the population are taken from La Porta et al. (1999).

28. If the dummy includes all pre-1996 OECD members, results are again largely unchanged. Excluding these countries from the sample also has only minor effects. Since the idea of convergence has been criticized by some empirical researchers, we have also run the regressions without the indicator for initial per capita GDP. Results are similar in all cases.

29. This is the most dangerous form of the disease, and we take the data for its incidence from Sachs (2003).

30. The data are once again taken from Gallup, Sachs, and Mellinger (1999) and include only countries with a population of over 1 million inhabitants. In this case we were unable to increase the size of the sample, as we could not find information on the incidence of malaria in the countries that we added to our main sample.

issue of endogeneity—rich countries can afford to fight malaria more effectively than poor ones. In the first half of the 20th century malaria was present in large parts of East Asia, Latin America, and Europe, from which it subsequently disappeared.[31] The British colonies in our sample were richer than the French colonies before 1966 (appendix table 8A.1), so we would expect them to have reduced malaria more effectively.

Gallup and Sachs (2000) claim that there is a fundamental difference between malaria in temperate and subtropical zones, where it has been possible to eliminate or reduce it considerably, and tropical malaria. Previously endemic malaria has been cleared from Spain, Italy, Greece, and the southern United States. In contrast, Gallup and Sachs claim, malaria in tropical zones simply cannot be eliminated at reasonable cost, except on islands; there are just too many mosquitoes and mosquito breeding grounds, and too many human carriers. Furthermore, not only does its incidence in 1966 significantly (and considerably) affect subsequent growth, but a reduction in its incidence (where it can be achieved, as in temperate zones) boosts growth significantly.

We find the first claim very dubious. There are several examples of sharp reductions in the incidence of tropical-zone malaria over the 1966–94 period: The Dominican Republic reduced incidence from 94 percent to zero, whereas Haiti, the other half of the tropical island of Hispaniola, failed to reduce its 100 percent incidence at all. Although Hispaniola is an island, it is very large, four-fifths the size of England. More important, the persistence of 100 percent incidence in Haiti means that epidemiologically, the Dominican Republic was not an island at all, as there was always a reservoir of malaria available across the border. Other examples of large reductions in tropical malaria over the 1966–94 period occurred in Brazil (from 40 to 19 percent) and Bangladesh (from 63 to 16 percent). Additionally, large increases in incidence observed in India (from 13 to 28 percent) and Malawi (from 52 to 100 percent) also suggest that tropical incidence is not exogenous or exclusively determined by the environment.

When we regress the proportional change in malaria falciparum during 1966–94 on GDP in 1960, we get a strongly significant effect, indicating that wealth does help reduce malaria:

$$\text{Lnmalfal94} - \text{lnmalfal66} = 1.856 - 0.985*\text{lnrpcgdp60} \qquad (8.4)$$
$$(0.064)\ \ (0.043)$$

Adjusted $R^2 = 0.049$, 64 observations

Although there is clearly a lot of noise, the coefficient has the expected sign and is quite strongly significant, so that a lower level of real per capita

31. Mussolini famously drained the Pontine Marshes south of Rome in the 1920s to eliminate the breeding ground for malaria there, something Julius Caesar had done in the 1st century BC.

GDP leads to a lower reduction in the incidence of malaria falciparum in the subsequent period. Moreover, this effect is much stronger than that of initial level of malaria on subsequent real per capita GDP growth:

$$\text{Lnrpcgdp95} - \text{lnrpcgdp60} = 0.318 - 0.051*\text{lnmalfal66} \quad (8.5)$$
$$(0.000)\ \ (0.137)$$

Adjusted $R^2 = 0.019$, 66 observations

Both the significance of the explanatory variable and the adjusted R^2 are much higher in the regression that explains the fall in incidence of malaria by initial GDP level than in the one that explains growth by initial malarial incidence.[32]

We have tried to calculate the two effects in a way that would allow us to compare their strength: An increase in initial real per capita GDP by one standard deviation (starting from the mean of the sample) results in malaria incidence decreasing by an additional 17.6 percent over the 29 years from 1966 to 1994, a continuously compounded annual rate of approximately 0.6 percent. This additional reduction is slightly above the mean reduction in malaria incidence. In other words, a one standard deviation increase in 1960 GDP from the mean of the sample more than *doubles* the reduction in malaria in the subsequent period. An analogous increase in initial incidence of malaria by one standard deviation from the sample mean decreases the growth rate of real GDP per capita over the subsequent 35 years by 2.6 percent, an annual reduction in growth of 0.07 percent, which is less than one-twelfth of the mean growth rate. Thus, the effect of a one standard deviation increase in initial real per capita GDP on malaria is slightly more than twelve times that of a one standard deviation increase in initial malaria incidence on subsequent real per capita GDP.[33]

32. In a cruder version of the same approach, we calculated the correlation between the incidence of malaria falciparum for 1966 (for those countries in which there was malaria) and real per capita GDP in 1960 and 1970. We then repeated the exercise for real per capita GDP in 1990 and 1999 and malaria in 1994. The results were as follows:

corr(rpcGDP60,malfal66) = –0.59 corr(rpcGDP70,malfal66) = –0.52
corr(rpcGDP90,malfal94) = –0.54 corr(rpcGDP99,malfal94) = –0.59

suggesting that real per capita GDP may have "Granger-type caused" malaria in the 1960s and malaria may have "Granger-type caused" real per capita GDP in the 1990s.

33. It is important that Gallup and Sachs (2000) do not find any significant effect of other tropical diseases on economic growth, so that malaria cannot be taken as an instrument for a general disease-laden environment over and above what is identified by tropical location—something we control for independently in all our regressions.

Conclusions

Legal School Versus Colonial Origin

When we regress economic growth separately on the two pairs of "legal school" and "colonial origin" dummies, we find that the difference between the two legal school dummies is insignificant and the difference between the colonial origin dummies is highly significant. We get the same outcome when both pairs of dummies are used together in the same regression. This remains true when we add the percentages of the followers of various religions, ethnolinguistic fractionalization, an Africa dummy, or an OECD dummy to equation 8.3.

Thus our results fail to confirm the Hayek–La Porta hypothesis that having a legal system based on the English common law is more conducive to economic development than French civil law. Our results also, therefore, reject the suggestion of Djankov and colleagues (2002) that other institutions historically associated with French civil law, such as a higher degree of state intervention, may cause weaker economic performance, rather than the French legal system itself. On the other hand, the results do support the view that a wider complex of institutions than just the legal system, such as those associated with having been a British rather than a French colony, does affect economic performance; a recent British colonial history is superior to a French one in enabling economic growth in the postcolonial period.

Importantly, the use of geographical variables helps us control for selection bias at the beginning of the imperial period. We also provide strong evidence that the incidence of malaria is endogenous to economic performance and should therefore be ignored as a control variable when examining the determinants of economic growth.

Grier's results for Africa suggest that better educational levels in former British colonies may be the main cause of their better growth performance. However, the results of Graziella Bertocchi and Fabio Canova (2002) are ambiguous as to the impact of colonial origin on education and growth. Examining the channels through which colonial origin could affect growth is therefore the first priority for further research.

Geography Versus Institutions

Our results also contribute to the debates about "geography versus institutions" and "policies versus institutions," which have divided researchers in recent years. First, our preferred indicator of institutional differences (colonial origin) is far less subjective than those used by some

researchers.[34] Dollar and Kraay (2000), for instance, use subjective indicators of property and political rights.[35]

Second, the debate between Acemoglu, Johnson, and Robinson on the one hand and Sachs and coauthors on the other comes down to whether differences in economic performance between what Acemoglu, Johnson, and Robinson call "colonies of settlement" and "colonies of extraction" are due, at least in part, to geographical conditions directly or whether such conditions affect performance *only* to the extent to which they determine the (better) institutions introduced by the imperial powers in "colonies of settlement." Sachs (2003) points out that this choice is itself associated with geographical/environmental conditions that may be unhelpful for economic performance today. Furthermore, higher settler mortality at the time of colonization is associated with lower levels of inherited human capital, as it is negatively correlated with migration from Europe, which was much richer than other parts of the world by the 19th century and thus had higher levels of human capital.

Whatever the merits of these arguments, our analysis excludes "colonies of settlement" from the "ex-colony" categories and compares only what Acemoglu, Johnson, and Robinson call former "colonies of extraction" belonging to different empires. In spite of this restriction, we find that the institutional differences reflected in our classification (which according to Acemoglu, Johnson, and Robinson are far smaller than the differences between "colonies of settlement" and "colonies of extraction") have a highly significant and large impact on economic performance. Thus we show that exogenously determined institutions do have an independent effect on economic performance, although unlike Acemoglu, Johnson, and Robinson, we do not claim that geographical factors have no independent effect themselves.[36]

Policies Versus Institutions

In their critique of institutional explanations of growth, Glaeser and colleagues (2004) stress the subjectivity and/or endogeneity of the institutional variables used by many researchers, an argument that, as we have seen, does not apply to the present work. They also show that measures of initial human capital stock (such as secondary school enrollment) explain

34. Even the "legal school" variable may involve a greater degree of subjectivity, as some countries have a number of sources for their legal tradition, as discussed earlier.

35. Such indices also suffer from the fact that they may be endogenous, with the quality of institutions improving as GDP per capita increases.

36. We do not need to make such a claim, as our classification depends on the accidents of history, whereas that of Acemoglu, Johnson, and Robinson depends on the supposed disease environment of countries at the time of colonization.

subsequent real GDP per capita growth rates and improvements in institutional variables better than the initial level of various (largely subjective) indices of institutional quality explain subsequent growth of income and of human capital. Since the experience of the Soviet Bloc has shown clearly that education does not in itself generate superior growth performance in the absence of private property and markets, and since Glaeser and colleagues (2004) find that political constraints on government do not have strong explanatory power in predicting growth, they conclude that *policies* that respect property rights and encourage education are those that determine growth.[37] These, it is argued, may be pursued equally well by democracies because they are compelled to do so or by dictatorships out of the free choice of the dictators.

While there were limits on the arbitrary use of political power in both French and British colonies (especially in the 20th century), neither empire was run on anything approaching a democratic basis, and both gave native populations little voice. Furthermore, almost all the "colonies of extraction" of both empires became dictatorships shortly after independence, a situation that began to improve significantly only in the 1990s, toward the end of the period we cover. In this respect our results are compatible with the views of Glaeser and colleagues (2004).

We therefore interpret our results as throwing light on differences between the two empires regarding institutions that help sustain "economic freedom," rather than those that might ensure "political freedom."[38] Such institutions consist in broadly defined property rights, including among others the right to a quick and fair trial (criminal or civil) according to comprehensible and clear laws, the right to protection from depredation by more powerful neighbors, the right to trade with whom one wishes, the right to save in a stable currency, and so on. They may also include access to an educational system adapted to local needs.

Of course, it is unclear which of these rights stem from policies and which from institutions. Are the rights to price stability and to trade freely "policies" or "institutions"? Is the maintenance of a more efficient and less corrupt police force and judiciary a policy or an aspect of the institutions concerned? We suggest that the answer depends on how long a given state of affairs is maintained, so that institutions are defined by the characteristic of persistence: A short period of freer trade in an era of protectionism is a policy; maintaining free trade for an age is an institution. The same principle would apply to inflation, corruption, efficiency of the judiciary, and so on. While we do not examine here how such varied "eco-

37. However, the arguments of Glaeser et al. are weakened by the results of Easterly and Levine (2003), which suggest that the three economic policies that are most often credited with hindering growth (protectionism, high inflation, and overvalued exchange rates) fail to explain growth differences once institutions are controlled for.

38. We use here the terminology of La Porta et al. (2004).

nomic institutions" differed quantitatively between the two empires in the first half of the 20th century and in the postcolonial period, we can infer that they did so sufficiently for economic growth to be clearly superior in the postindependence period in former British colonies than in former French ones.

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Appendix 8A

Table 8A.1 Summary statistics

Institutional category	Mean	Standard deviation
Real per capita GDP, 1960		
French civil law	1,807.96	1,631.03
British common law	2,559.21	2,765.56
French colonies	902.28	407.77
British colonies	1,498.00	1,504.17
Other countries	2,696.96	2,440.81
Real per capita GDP, 1995		
French civil law	3,609.35	4,074.85
British common law	5,124.72	5,624.17
French colonies	1,245.31	1,038.35
British colonies	3,015.46	2,887.53
Other countries	6,909.29	5,503.65
Growth rates (yearly, continuously compounded)		
French civil law	1.152 percent	1.347
British common law	1.641 percent	1.674
French colonies	0.389 percent	0.563
British colonies	1.681 percent	1.550
Other countries	2.678 percent	1.668
Share of population within 100 km of the coast		
French civil law	0.5131	0.3572
British common law	0.5347	0.4060
French colonies	0.3661	0.3121
British colonies	0.5370	0.4226
Other countries	0.4500	0.3994
Share of the land area within the tropics		
French civil law	0.7097	0.4293
British common law	0.6421	0.4506
French colonies	0.8233	0.3588
British colonies	0.7862	0.3792
Other	0.3063	0.4374
Malaria incidence, 1966		
French civil law	0.4357	0.4691
British common law	0.4779	0.4487
French colonies	0.7281	0.4276
British colonies	0.6451	0.4023
Other	0.2286	0.3462
Malaria incidence, 1994		
French civil law	0.3970	0.4646
British common law	0.4601	0.4393
French colonies	0.7047	0.4233
British colonies	0.5915	0.4114
Other	0.1791	0.2990

(table continues next page)

Table 8A.1 Summary statistics *(continued)*

Institutional category	Mean	Standard deviation
Ethnic fractionalization (115 observations)		
French civil law	0.3545	0.3126
British common law	0.4422	0.3151
French colonies	0.6049	0.2758
British colonies	0.4836	0.3279
Other	0.3080	0.2977
Share of Catholic population		
French civil law	0.5720	0.3882
British common law	0.2182	0.2099
French colonies	0.1574	0.1965
British colonies	0.2427	0.2507
Other countries	0.1572	0.2543
Share of Protestant population		
French civil law	0.0525	0.0906
British common law	0.2085	0.1710
French colonies	0.0794	0.1334
British colonies	0.1857	0.1761
Other	0.2460	0.3381
Share of Muslim population		
French civil law	0.2083	0.3504
British common law	0.1015	0.2706
French colonies	0.5412	0.4111
British colonies	0.1857	0.2818
Other	0.2513	0.3871

Table 8A.2 List of countries in the sample

French civil law countries	Common law countries	Other countries	French colonies	British colonies
Algeria	Australia	Austria	Algeria	Bahamas*
Angola	Bahamas*	Cameroon	Benin	Bangladesh
Argentina	Bangladesh	China	Burkina Faso	Barbados*
Belgium	Barbados*	Czech Republic	Chad	Belize*
Benin	Belize*	Denmark	Central African Republic	Botswana
Bolivia	Botswana	Ethiopia	Comoros*	Fiji*
Brazil	Canada	Finland	Congo	Gambia
Burkina Faso	Fiji*	Hungary	Côte d'Ivoire	Ghana
Burundi	Gambia	Iceland*	Gabon	Guyana
Cape Verde*	Ghana	Indonesia	Guinea	*Hong Kong*
Chad	Guyana	Iran	Madagascar	India
Central African Republic	*Hong Kong*	Japan	Mali	Jamaica
Chile	India	Jordan	Mauritania	Kenya
Colombia	Ireland	Namibia	Morocco	Lesotho
Comoros*	Israel	Nepal	Niger	Malawi
Democratic Republic of the Congo	Jamaica	Netherlands	Senegal	Malaysia
Costa Rica	Kenya	Norway	Togo	Malta*
Côte d'Ivoire	Lesotho	Oman	Tunisia	Mauritius
Dominican Republic	Malawi	Philippines		Nigeria
Ecuador	Malaysia	Romania		Pakistan
Egypt	New Zealand	Saudi Arabia		Papua New Guinea
El Salvador	Nigeria	South Africa		Seychelles*
France	Pakistan	South Korea		Sierra Leone
Gabon	Papua New Guinea	Sudan		*Singapore*
Greece	Sierra Leone	Suriname*		Sri Lanka
Guatemala	*Singapore*	Sweden		Swaziland*
Guinea	Sri Lanka	Switzerland		Tanzania
Guinea-Bissau	Swaziland*	Syria		Trinidad and Tobago
Haiti	Tanzania	Taiwan		Uganda
Honduras	Trinidad and Tobago	Thailand		Zambia
Italy	Uganda	Turkey		Zimbabwe
Luxembourg*	United Kingdom			
Madagascar	United States			
Mali	Zambia			
Malta*	Zimbabwe			
Mauritania				
Mauritius				
Mexico				
Morocco				
Mozambique				
Nicaragua				
Niger				
Panama				
Paraguay				
Peru				
Portugal				
Rwanda				
Senegal				
Seychelles*				
Spain				
Togo				
Tunisia				
Uruguay				
Venezuela				

Note: All countries not in the British or French colony categories are in the omitted category in equation 8.2. Although data are available for *Hong Kong* and *Singapore*, they are not included in the regressions. We added countries marked with an asterisk (*) to the Gallup, Sachs, and Mellinger (1999) sample.

Table 8A.3 Distribution of countries in the sample across institutional categories

Institutional category	Number of countries
French civil law	
French colonies	18
Not French colonies	37
Total	55
Common law	
British colonies	26
Not British colonies	7
Total	33
British colonies	
Common law	26
French civil law	4
Total	30
French colonies	
French civil law	18
Not French civil law	0
Total	18
Others	30