Individualism-Collectivism, Governance and Economic Development

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Abstract

While an individualist society prizes personal control, autonomy and individual accomplishments, a collectivist society puts a premium on loyalty and cohesion and imposes mutual obligations in the context of in-groups. It has been argued that individualism will promote economic development directly by sharpening individual incentives to invest, innovate and accumulate wealth. In this article, I argue that the individualist-collectivist dimension can also affect development through its impact on governance. The in-group favoritism inherent to collectivist societies is likely to engender corruption, nepotism and clientelism in the public sphere. In individualist societies, the relative weakness of in-group pressures and an emphasis on personal achievement and worth will contribute towards a more meritocratic and efficient public sector. My empirical evidence confirms the strong positive relationship between individualism and government quality. Moreover, I provide robust empirical evidence showing that the expected direct positive impact of individualism on economic development disappears when additionally controlling for governance, a finding which suggests that insofar as individualism affects development it does so because it promotes good governance.

Keywords: culture, individualism, collectivism, in-group favoritism, governance, economic development

JEL codes: D02, D73, E02, O43, Z10.

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Introduction

The individualist-collectivist dimension (I-C) has been identified by social psychologists as the most fruitful way of explaining cultural differences across societies (Oyserman, Coon, & Kemmelmeier 2002; Kashima and Kashima 2003). An individualist society is one where ties between individuals are loose and everyone is expected to look after themselves and their immediate family while in a collectivist one people are born into tightly knit in-groups which protect them in exchange for unquestioning loyalty (Hofstede and Hofstede 2010). Individualist societies put rights above duties and emphasize personal control, autonomy and accomplishments while collectivist ones impose mutual obligations and expectations in the context of in-groups which are perceived to have common fates and goals (Hofstede 1980; Schwartz 1990; Triandis 1995).

Because of the potential importance of the I-C dimension, Gorodnichenko and Roland (from here on G-R) have developed an important line of work exploring the extent to which this cleavage can explain cross-country differences in the level of economic development. Thus, G-R (2011a, 2013) argue that because individualist cultures attach social status to personal achievements while collectivist ones tend to be conformist, then the former are likely to foster innovations and discoveries which are instrumental in promoting long run growth. In line with this, they provide empirical evidence of a strong positive causal effect of individualism on innovation and measures of long-run growth. Moreover, G-R (2011b) empirically explore the impact of a range of cultural variables on GDP per capita – including measures of social hierarchy, risk aversion, generalized trust, tolerance and attitudes to work – and identify I-C as the most economically important and statistically robust cultural dimension.

In this article I explore the extent to which the I-C cleavage impacts on economic development through government quality which broadly refers to the extent that the state secures private property and the rule of law, is free of corruption and is endowed with an efficient public administration (La Porta et al. 1999). A large literature in economics has identified the crucial role of good government for economic development (for example, North 1990; Hall and Jones 1999; Acemoglu et al. 2001; Rodrik et al. 2004). Secure property rights and equality before the law encourage investments in physical and human capital and technology thus setting the foundation for long-run growth (Acemoglu et al. 2005). Corruption is inimical to development since it implies the misallocation of public resources both directly, because of the appropriation of public resources for private gain, and indirectly, insofar as it distorts collective decision-making (Shleifer and Vishny 1993; Bardhan 1997). And an efficient public administration opens the way for the cost-effective provision of public goods beneficial for sustained economic growth (Mauro 1995; Evans and Rauch 1999).[1]

The connection between I-C and governance has been made by several authors. Tanzi (1994) describes how individualistic societies tend to apply the "arms length principle"

[1] Empirical work has tended to equate government quality with formal institutional quality and has typically measured it by way of a perception-based index of protection against expropriation (for example, Acemoglu et al. 2001). However, Glaeser et al. (2004) show that such indicators are uncorrelated with objective measures of formal institutional constraints and suggest that this is because they measure outcomes rather than formal institutional constraints per se. For this reason I prefer the term government quality or governance instead of institutional quality (see also, Kyriacou 2014).

such that public decisions are guided by universalistic and objective criteria rather than personal relationships and cronyism. He suggests that in collectivist societies such behavior would seem alien and even immoral and would conflict with social norms that put family and friends first. In his monumental work on the emergence of rule of law and political order more generally, Fukuyama (2011, 2014) describes patrimonial states staffed with family and friends with little or no effort to treat citizens impersonally on the basis of universally applied rules. These states are likely to suffer from nepotism, clientelism and corruption. While not strictly framing his discussion in the context of the I-C cleavage, this author identifies the weakening of kinship ties and the emergence of individualism as important milestones on the road towards the attainment of rule of law.

Given the potential link between the I-C dimension and governance, in this article I empirically reexamine the causal impact of this cleavage on economic development in the presence of government quality. As such, this contribution can be placed in the context of a growing literature examining the effect of different cultural dimensions on governance and economic development (for a review, see Alesina and Giuliano 2014). My empirical results are revealing. I find that the I-C dimension impacts on development entirely through its effect on governance. Specifically, I find that more individualistic countries tend to be wealthier because this particular cultural trait endows them with better quality governments. My findings are robust to the introduction of a range of potentially confounding variables as well as the application of estimation methods which deal directly with the presence of reverse causality or, in other words, the possibility that economic development may be an important factor driving both individualism and good governance.

The paper is structured as follows. In the next section I review previous work which has discussed the impact of the I-C cleavage on development either directly or indirectly through government quality. Having done so, I present my choice of data and empirical method. After that I report and discuss the main result and explore their robustness. I then conclude the article.

Previous work

Several scholars have explored the direct effect of I-C on long-run growth. Ball (2001) draws from Bauer and Yamey (1957) and Lewis (1965) to explain how in developing country settings, the strength of in-groups such as the extended family may be advantageous because they can provide informal insurance, but in more developed economies they may undermine growth prospects because social obligations to share within the family or group are likely to reduce individual incentives to invest and accumulate wealth. Consistent with this, Platteau (2000) points out that the fact that redistributive norms are not applied to foreign entrepreneurs is one reason why they tend to do relatively well in the host countries. More recently, experimental evidence from a number of developing countries has provided support for the idea that individuals faced with kinship pressures to share their wealth, adopt evasive strategies such as "excessive borrowing" to signal that one is cash constrained (Baland et al. 2011), or reductions in profitable but observable investment incomes to the possible detriment of economic growth (Jakiela and Ozier 2015).

Gorodnichnko and Roland (2011a, 2013) have proposed that, from a theoretical perspective at least, the direct impact of individualism on long-run growth is ambiguous. On the one hand, to the extent that individualism attaches social prestige to

personal achievements this is likely to spur innovation to the benefit of growth. On the other hand, collectivism can promote growth insofar as it facilitates the coordination of production factors and collective action more generally. (Conversely, individualism can hamper growth insofar as it undermines social coordination while collectivism can do so to the extent that it imposes conformism thus blunting individual initiative.) These scholars argue that the expected benefits of individualism affects the dynamic efficiency of the economy while the benefits of collectivism impact on static efficiency and, as such, they expect the former to swamp the latter. Consistent with this, their empirical analysis reveals a strong positive effect of individualism on output per worker, productivity and innovation.

Another body of work has considered the possible impact of the I-C dimension on governance. Scott (1972) explains that in traditional societies, parochial ties and gift-giving practices permeate inter-personal relationships and explain the high incidence of corruption in developing countries. Similarly, Tanzi (1994) states that the public sphere in collectivist societies is characterized by clientelistic networks which act according to rules of reciprocity that have their origin in a kinship-based social organization, something which fuels patronage and corruption (see also, Chabal and Daloz 1999 and Smith 2003). Alternatively, he identifies individualist societies as ones approaching the Weberian ideal of rational-legal bureaucracy where public administrators are hired and promoted based on merit and who follow rational procedures and universalistic principles.

Fukuyama (2011, 2014) goes further and describes two biological sources of in-group favoritism namely kin selection and reciprocal altruism or exchange of favors or resources between unrelated individuals. He makes the point that if individuals are hardwired towards in-group favoritism, the existence of societies that have diverged from this must be due to the emergence of socially constructed behavior. This matter is taken up by Greif (2006) in his study of the historical emergence of formal institutions ensuring contract enforcement. This scholar argues that in collectivist societies, individuals mostly interact with members of identified in-groups (familial, religious, tribal or ethnic) and contract enforcement is achieved through informal institutions. Alternatively, in individualistic societies, peoples' membership of groups is fluid and changing and individuals transact across groups while contract enforcement is achieved mainly through specialized organizations, such as courts. Crucially, Greif (2006) makes the important point that the historical emergence of formal institutions supported impersonal exchange thus enlarging the size of the market, something which facilitated the division of labor and ultimately long-run growth (see, also North 1990 and Wallis 2009).[2]

Conceptually therefore, both the direct impact of individualism on economic development and the indirect impact through governance is expected to be positive. The issue at hand is whether individualism impacts on development directly after controlling for government quality or, in other words, the extent to which the impact of the I-C cleavage on development passes through governance. In a related piece, Licht et al. (2007) provide empirical evidence supporting the expectation that individualism will

[2] The origins of individualism and collectivism may go back to the very distant past. In the next section I point to the possible role of geography and religion in explaining cross-country differences in I-C. Macfarlane (1978) argues that individualism already existed in 13th century England.

tend to improve government quality while collectivism undermines it but do not empirically explore the impact of culture and governance on economic development. This is an issue taken up by G-R (2013) who acknowledge the potentially confounding effect of governance on the estimated impact of individualism on long-run growth. When they introduce government quality in their regressions - specifically a measure of protection from expropriation risk - they find that both institutions and individualism have a positive and statistically significant effect on their measures of long-run growth, and that the impact of individualism is the more statistically robust of the two. When governance is controlled for, the point estimate of individualism is significantly reduced suggesting that these two variables are related and indeed, the authors pursue the relationship between individualism and governance empirically and find stronger evidence that the direction of causality flows from individualism to government quality.

In light of the literature linking the I-C cleavage or in-group favoritism with governance, in the remainder article I will empirically revisit the extent to which individualism impacts on economic development separately from government quality. In doing so, I diverge from G-R (2013) on several accounts. First, my main empirical estimates are based on a larger cross-section of countries: up to 93 countries compared to a maximum of 75 employed by G-R. Second, given the previous discussion linking the I-C cleavage to different dimensions of governance and from there to economic development, I employ governance indicators which incorporate information on government quality beyond the risk of expropriation.

Third, I employ alternative instrumental variables for both individualism and government quality to account for the impact of development on both. G-R acknowledge that their main instrument for individualism, a measure of genetic distance between the population in a given country and that of the USA or the UK which are the most individualistic countries in the sample, is hampered by the fact that it may be instrumenting for other cultural dimensions apart from I-C. They attempt to address this limitation by way of alternative instruments which previous work has linked to I-C: two genetically-based instruments, another reflecting the prevalence of infectious diseases, and a fourth one based on linguistic rules. However, the use of gene-based and linguistic instruments severely reduces their sample (to between 23 and 39 observations) while the extent to which pathogen prevalence satisfies the exclusion restriction can been questioned because the disease burden can have a direct effect on development (Gallup et al. 1999; Sachs 2003). With regards to the instrumental variable chosen for governance, they employ settler mortality from Acemoglu et al. (2001) as well as a version of that data from Albouy (2012). Again, the choice of this variable reduces their sample (to 35 countries). Moreover, the resultant F-statistics from the first stage regression raise the problem, recognized by the authors, of weak instruments; specifically the likelihood that the estimated standard errors are far too small (Murray 2006).

Before closing this section a word is in order about related but distinct literature. One line of work has explored the impact of strong family ties on socio-economic outcomes. This work is inspired by Banfield's (1958) argument that at the heart of the relative underdevelopment of Southern Italy is 'amoral familism' or the tendency of individuals to maximize the material advantage of the nuclear family and assume that others will do the same. This behavior translates into a distrust of strangers or, conversely the absence of generalized trust which impedes profitable market exchange (Arrow 1972; Knack and Keefer 1997) but also undermines political participation and government efficiency

(Putnam et al. 1993, Knack 2002; Guiso et al. 2008). Alesina and Giuliano (2013) go beyond generalized trust and measure family ties by way of survey responses to questions regarding the importance of the family, respect for parents and parental duties. They find strong family ties to be inversely related to economic development, political participation and governance.

Another, line of work starts with Platteau's (2000) distinction between limited and generalized morality: in the former individuals restrict the application of ethical standards to in-groups and opportunistic behavior is morally acceptable outside these groups, while in the latter the same ethical or moral standards are extended to in-groups and strangers. This echoes the notion of particularized versus generalized trust and, indeed, this author equates generalized morality with trust and respect for strangers. Inspired by this insight Tabellini (2008) shows that societies with low trust levels, and which score low on a question asking if tolerance and respect for other people is an important quality for children to learn, have worse government quality. Moreover, Tabellini (2010) combines these societal traits with others and finds them to be important determinants of the level of economic development in Europe.

Obviously, inasmuch as family ties and the notion of limited morality describe an individual tendency towards in-group favoritism, these two concepts are conceptually similar to the I-C cleavage. However, there are differences. Banfield's "amoral familism" and the indicators used to measure family ties tend to focus on the strength of ties within the nuclear family while from the perspective of the I-C dimension the relevant in-group can be much larger. The notion of limited morality resembles what is typically understood by collectivism but generalized morality does not necessarily map neatly with individualism which also refers to self-reliance, personal control, autonomy and initiative. Consistent with this, the simple correlations between the main measure of the I-C divide employed in the empirical analysis below and measures of family ties and generalized trust are -0.501 (between I-C and family ties) and 0.418 (between I-C and trust). Notwithstanding this discussion, in the empirical analysis below I control for generalized trust to account for its confounding effect.

Data and Empirical Method

I follow G-R (2011a, 2013) and employ the Hofstede (2010) conceptualization and data as the main measure of the I-C dimension. This data was originally available for around 40 countries but has been expanded over time and currently covers 102. The country scores are generated on the basis of country-specific surveys which ask a broad range of questions the responses to which are then aggregated using factor analysis. The I-C cleavage emerges as the most important component of this analysis among several others including, power distance, masculinity and uncertainty avoidance. The resultant scores range from 0 to 100 (here normalized between 0 and 1), with higher scores reflecting a more individualist society. Perhaps the most fruitful way to define what the author means by an individualist or collectivist society in relation to the public sphere is by considering his on-line description of two societies identified as such by his analysis (see, Appendix B for the web source):

> "Australia, with a score of 90 on this dimension, is a highly individualistic culture. This translates into a loosely-knit society in which the expectation is that people look after themselves and their immediate families. In the business world,

> employees are expected to be self-reliant and display initiative. Also, within the exchange-based world of work, hiring and promotion decisions are based on merit or evidence of what one has done or can do."
>
> "Angola's very low score of 18 means that it is considered a collectivistic society. This is evident in a close, long-term commitment to the member 'group', be that a family, extended family, or extended relationships. Loyalty in a collectivist culture is paramount and overrides most other societal rules and regulations. The society fosters strong relationships where everyone takes responsibility for fellow members of their group. In collectivist societies: offence leads to shame and the loss of face, employer/employee relationships are perceived in moral terms (like a family link), hiring and promotion decisions take account of the employee's in-group and management is the management of groups."

In my sample of countries, the most individualist country is the United States followed by Australia and the United Kingdom while the most collectivist is Guatemala followed by Ecuador and Panama (see appendix A for the summary statistics and appendix B for definitions and sources of all the variables employed in this article).

As a robustness check I employ an alternative measure of the I-C cleavage from Schwartz (1994) who generates several cultural value orientations including one he labels Autonomy versus Embeddedness (see also Licht et al. 2007 and G-R 2013). There are two types of autonomy: intellectual and affective. The former encourages individuals to pursue their own ideas and intellectual directions independently while the latter them to pursue affectively positive experience for themselves. In embeddedness cultures, meaning in life comes through social relationships and group identification and action. Such cultures emphasize maintaining the status quo and restraining actions that might disrupt in-group solidarity or the traditional order. The measure of I-C I employ is the first principle component of the intellectual and affective autonomies and embeddedness under the assumption is that the correlations between the three variables can be causally ascribed to the individualism-collectivism dimension. The simple correlation between it and the Hofstede variable is 0.638 thus indicating the usefulness of the former for robustness purposes.

To measure governance, I employ four variables from the International Country Risk Guide (ICRG) which measure the risk of investment (including the risk of expropriation), an assessment of corruption in the public sector (including patronage, nepotism and favors for favors), law and order (both impartial courts and popular observance of the law) and the quality of the bureaucracy (independent and meritocratic). The values for each of these dimensions are normalized between 0 and 1 and then aggregated by taking their average. Higher values of indicate better governance. In the sample employed here countries with the best governance according to this indicator are Finland, Luxembourg and the Netherlands while government quality is especially low in countries like Iraq, Sierra Leone and Bangladesh.[3]

[3] Another source of governance data are the World Bank World Governance Indicators which provide information on government effectiveness (the quality of public services and the public administration), regulatory quality, rule of law (which includes the quality of contract enforcement) and control of corruption. However, the simple correlation between the ICRG aggregate measure and that which results when combining the above dimensions (as suggested

To measure economic development I employ the logarithm of real GDP per capita from the Penn World Tables. Moreover, in line with G-R (2011a, 2013), I also examine the robustness of my findings when instead I employ the log of real GDP per worker and current Total Factor Productivity (both from Penn) and the logarithm of total patent applications by residents from the World Development Indicators.

Figures 1, 2 and 3 about here

In figure 1 below I plot real GDP per capita against my main indicator of the I-C cleavage while figure 2 does the same but additionally controlling for governance as measured by the ICRG aggregate indicator. Although preliminary since these figures are silent on the direction of causality and the impact of important covariates, they are suggestive of the important role played by governance in the relationship between development and the I-C cleavage. When controlling for governance, the positive relationship between individualism and development disappears. Alternatively, the positive association between individualism and governance persists after controlling for GDP per capita (figure 3). These results are reflected by the simple correlations between these variables: the simple correlation between the logarithm of GDP per capita and the Hofstede measure of individualism is 0.605 and statistically significant at the 1% level, but becomes 0.007 with a p-value of 0.945 when controlling for government quality. On the other hand, the correlation between individualism and governance after controlling for development is 0.549 with a p-value of 0.

One important factor driving individualism may be economic development. Collectivism will be stronger in poor, rural societies because resource scarcity makes people dependent on in-groups while, conversely, economic development will tend to foster individualism because it liberates people from the urgency of covering basic needs (Triandis 1995; Ingelhart and Oyserman 2004; Hofstede and Hofstede 2010; Hruschka and Henrich 2013). Economic development may also be an important determinant of government quality simply because good governance may be costly (Islam and Montenegro 2002) or because development promotes education and literacy and, as a result, creates a demand for better governance (La Porta et al. 1999; Treisman 2000).

To deal with the potential incidence of economic development on both the I-C cleavage and governance I employ instrumental variables and TSLS estimation. To instrument for I-C I turn to the grammatical rule on pronoun drop (see also, Licht et al. 2007 and Tabellini 2008). Languages that use pronouns 'I' or 'you' tend to highlight the individual while the drop of these pronouns is indicative of societies that embed the individual in social contexts and thus suggest collectivism (Kashima and Kashima 1998). I employ a recent data set which provides information on pronoun drop for up to ninety-four countries (Abdurazokzoda and Davis 2014). To instrument government quality I resort to legal traditions. Specifically I employ binary variables which identify a country as having a Soviet, French, German, Scandinavian or British legal tradition; traditions which date back to the 17th century in the case of British common law or the 19th in the case of civil law (French, German and Scandinavian). The basic rational is that legal origins reflect the relative power of the state vis-à-vis property owners and specifically, state power tends to be highest in countries with a Soviet legal tradition, lower in those with a civil law tradition and lowest in those with a common law tradition (La Porta et

by Langbein and Knack 2010) is 0.961 meaning that the latter is not very useful for robustness purposes.

al. 1999). Compared to common law, civil law aims to replace market-driven outcomes with state-desired allocations (La Porta et al. 2008). La Porta et al. (1999, 2008) show that legal origins are robustly associated with a range of governance indicators including property right protection, corruption, regulatory efficiency and bureaucratic red tape.[4]

My empirical strategy also deals with the confounding effect of variables which can reasonably be expected to be related to economic development, the I-C dimension and governance that, if neglected, may produce omitted variable bias. In particular in the regressions displayed in the results section below, I always control for continental fixed effects, a country's distance from the equator and its religious heritage. I control for latitude because Diamond (1997) has explained the importance of a large land-mass across an East-West axis for technological diffusion and, ultimately, long-run growth. In addition, Gallup et al. (1999) have argued that the geographic location of the tropics could undermine development because it increases the disease burden. Distance from the equator can also affect governance by defining natural endowments and the disease environment, both factors which scholars have suggested may have influenced the institutional environment which emerged in the new world after colonization (Engerman and Sokoloff 1997; Acemoglu et al. 2001; Rodrik et al. 2004). Finally, it has been argued that from an evolutionary perspective, the higher pathogen prevalence characteristic of the climatic conditions associated with proximity to the equator, leads people to limit interactions with out-groups in an effort to minimize the risk of infection and, as a result, helps explain the existence of collectivist cultures (Fincher et al. 2008).

Religion has been linked to individualism, governance and development. Max Weber argued that Protestantism by putting emphasis on individual responsibility and self-reliance helped to "shatter the fetters of the kinship group" (quoted in Ball 2001; see also Oyserman et al. 2002). Relatedly, Goody (1983) explains that the Catholic church took a strong stand against traditions such as consanguineous marriages in order to reduce the control of property by kinship groups and increase that in Church hands through bequests (see also, Greif 2006). Religion can also impact on institutions beyond its effect on I-C. Fukuyama (2011) explains how, in the 11th century, the Catholic Church strove to protect itself from secular powers by promoting the idea that secular leaders were neither above the law nor the ultimate source of law thus setting the basis for the development of the rule of law. Compared to Protestantism, Catholicism, Islam and the Eastern Orthodox tradition are more hierarchical thus possibly inculcating values which make people less likely to challenge public officials (La Porta et al. 1999; Treisman 2000). And religion can impact on economic development because it preaches the value of work ethic and thrift (Weber 1930; Landes 1999) perhaps because it is underpinned by the idea that to do otherwise may win you eternal condemnation (Barro and McCleary 2003). To account for religion I employ data on religious affiliations in 1900 in an effort to avoid the masking effect of massive twentieth century conversions to monotheism in Africa (North et al. 2013).

[4] In the empirical section below I report the F-statistics from the first stage regressions as evidence of the strength of the chosen instruments. Staiger and Stock (1997) suggested the rule of thumb that, with one endogenous regressor, instruments be deemed weak if the first-stage F is less than 10. As explained by Stock and Yogo (2005), this rule of thumb is approximately a 5% test that the worst-case relative bias of TSLS is around 10% or less. According to these authors, the same test with two endogenous regressors and five instruments (my case) implies a critical value of 8.76. A tighter 5% test requiring that the worst-case relative bias of TSLS is 5% with two endogenous regressors means a critical value of 13.97.

Empirical results

Before considering the impact of individualism on economic development in the presence of government quality, I turn to the relationship between individualism and governance to establish their correlation, since this is a necessary condition for examining the presence of bias in the estimated impact of individualism on development due to the omission of government quality. Table 1 presents regressions of one variable on the other, both OLS and with TSLS employing pronoun drop as an instrument for individualism and legal origins as an instrument of governance. The results reported in Table 1 indicate that the direction of causality runs both ways: more individualist countries will tend to have better governance as expected given the previous discussion. But better governance also reinforces individualism. Consistent with this, Hruschka and Henrich (2013) provide empirical support for the idea that the presence of social institutions that can buffer risk reduces the need to reinforce in-group ties as a source of social insurance and support (see also, Norris and Inglehart 2004).[5]

Table 1 about here

Regardless of the direction of causality, for my purposes here the relevant point is that insofar as individualism is positively related to government quality, then the omission of the latter from regressions which calibrate the impact of individualism on development are likely to generate point estimates that are upward biased, assigning to individualism the effect of governance on development. Table 2 presents the basic estimates when regressing GDP per capita on both individualism and government quality. It presents both OLS and TSLS estimates. With regards to the latter, the F-statistics from the first stage confirm the strength of the chosen instruments since they are generally above the suggested critical values when there are one or two endogenous regressors. Moreover, the p-values from the over-identification tests always exceed 0.100, meaning that we cannot reject the null hypothesis that the instruments are exogenous.

The results are revealing. The strong positive impact of individualism on development disappears in the presence of government quality. Moreover, the point estimate of individualism drops markedly when government quality is added to the regression. These findings are robust to the use of OLS and TSLS as well as the introduction of the full set of controls. In light of the positive relationships identified in table 1, these results raise the possibility that the positive impact of individualism on development passes through its benign effect on governance.

Table 2 about here

In table 3 I consider the robustness of the results to a set of potentially endogenous regressors. In particular, I control for cross-country differences in human capital, the degree of ethnic heterogeneity, interpersonal inequality, the relative size of urban populations and the percentage of people who declare that they tend to trust strangers. I control for education because of the possibility that it may be positively related to

[5] Because of the strong correlation between log GDP per capita and government quality (0.807), controlling for the latter in the lower panel of table 1 raises the spectre of inflated standard errors due to multicollinearity, especially when applying TSLS (see for example, Woodridge 2006). Another problem with introducing an endogenous regressor that is positively correlated with individualism and government quality is that it will tend to bias the impact of governance downwards (see Acemoglu et al. 2001 for the proof).

individualism (G-R, 2013) and because human capital matters for both development and governance (Glaeser et al. 2004; Tabellini, 2008).[6] Ethnic heterogeneity can be pernicious for both economic development and governance (Alesina and La Ferrara 2005) and can increase the salience of in-group affiliation thus contributing towards collectivism (Schwartz 2004; Licht et al 2007). Inequality can worsen government quality (You and Khagram 2005) and can undermine long-run growth either directly (Easterly 2007) or through its effect on governance (Halter et al. 2014). Moreover, collectivist societies tend to be more unequal and hierarchical (Triandis 1995). Alternatively, urbanization may weaken collectivist ties (for example, Triandis 1995; Freeman 1997; Oyserman et al. 2002) and has been linked to development (for example, Kuznet 1968; Acemoglu et al. 2002) and better governance (Billger and Goel 2009). Finally, given the discussion in section 2 above I also control for the prevalence of generalized trust. The results in Table 3 indicate that the inclusion of these variables does not change the main finding: individualism does not have a statistically significant impact on long-run growth in the presence of government quality.

Table 3 about here

In table 4 I consider the robustness of the previous findings when employing indicators of economic development similar to those used by G-R (2011a, 2013). Specifically, I employ income per worker in logs, total factor productivity and the number of patents by residents (again in logs).[7] The results indicate the fundamental role played by government quality in explaining cross-country differences in these variables (see Hall and Jones 1999 for similar findings). The importance of good governance for long-run growth can also be seen from the regressions in table 5 which employ I-C indicator based on Schwartz (1994). All in all, the results in these two tables reinforce the idea that government quality may be an important channel through which individualism impacts on economic development.

Tables 4 and 5 about here

Conclusion

An individualist society tends to value personal control and autonomy and attaches social status to individual accomplishments. A collectivist society prizes loyalty and cohesion and imposes mutual obligations in the context of in-groups – obligations which can exert pressure to redistribute resources to other members of the group. In the private, market sphere this leads to the expectation that societies arrayed along the I-C dimension will differ in their long-term growth prospects and in particular one would expect individualist societies to do better because they sharpen individual incentives to invest, innovate and accumulate wealth. But the I-C dimension also has an incidence on

[6] Controlling for human capital also helps reinforce the exclusion restriction when using legal origins as instruments for governance. It has been argued that English colonial rule pursued more enlightened educational policies compared to French rule (Rostowski and Stacescu 2006 as cited in La Porta et al. 2008). Thus, education could be an additional channel through which legal origins can affect development. In appendix C I further pursue the exogeneity of legal origins as instruments.

[7] G-R also employ the Innovation Performance Index, published by the Economist Intelligence Unit, which provides information on both the number of patents and their value. I don't use this variable in the analysis because some of its components include institutional environmental variables (EUI, 2009).

the public sphere where individualism translates to meritocracy and individual potential as well as the historical emergence of formal institutions which facilitate impersonal exchange while collectivism implies in-group favoritism in the form of nepotism and clientelism and a history of informal contract enforcement within identified groups. From this vantage point individualist societies should do better insofar as they achieve stronger property right protection and rule of law, lower corruption and higher bureaucratic efficiency.

The empirical evidence reported in this article suggests that the positive impact of individualism on economic development is due to its benign effect on governance. Specifically, I first document the strong positive correlation between individualism and government quality and find evidence that the causality runs both ways. Individualism is conducive towards higher government quality but good governance may also contribute towards a more individualist culture perhaps because it reduces the importance of strong in-group ties as a source of social insurance and support. Second, I find that the positive impact of individualism on economic development disappears in the presence of government quality. Specifically, the inclusion of governance as an additional regressor markedly reduces the point estimate and eliminates the statistical significance of individualism. This result is robust to the inclusion of a wide set of controls, different ways of measuring economic development and the I-C dimension, as well as estimation methods which strive to account for the likelihood that more developed countries may be more individualist and have better governance.

A growing body of work in economics has identified the role of long-term factors such as geography, history and culture in explaining the wealth of nations (see Spolaore and Wacziarg 2013 for a review). These authors admit that cultural norms change slowly over time (see also North 1990; Williamson, 2000; Roland 2004) but are optimistic that globalization may facilitate "greater convergence of norms and values, facilitating the horizontal diffusion of technological and institutional innovations" (p. 364). While it is difficult to say what the future holds, the analysis presented in this article indicates that a fuller understanding of cross-country differences in economic development would be gained by a consideration of the origins of cultural differences across societies, the process of cultural change and diffusion and the specific causal channels through which culture and governance interact.

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Figures and tables to be embedded in the text

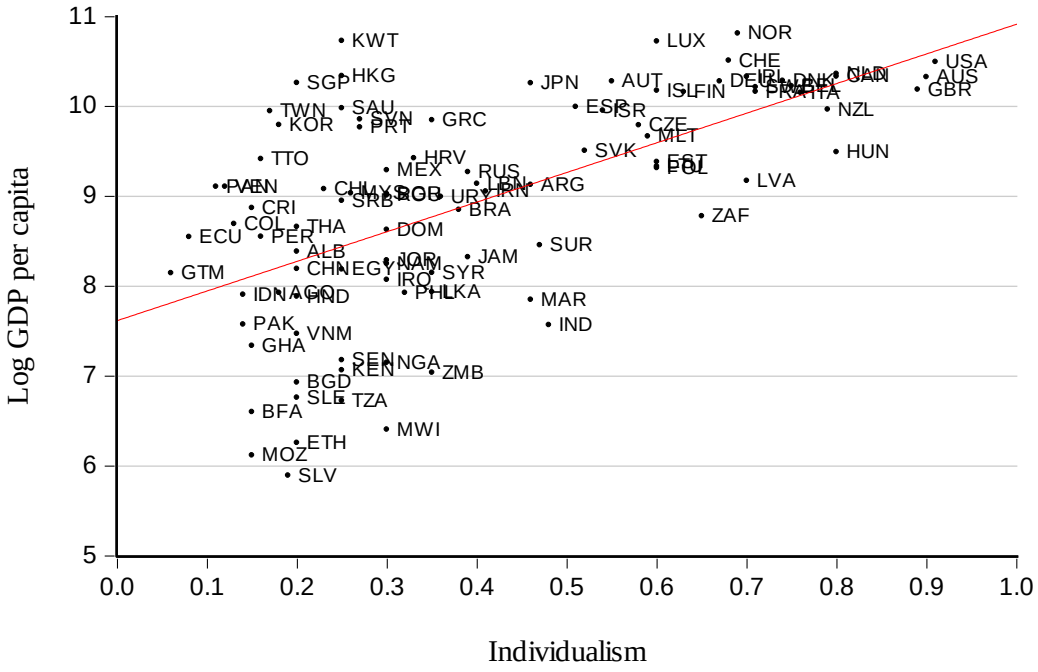

Figure 1. Individualism and economic development

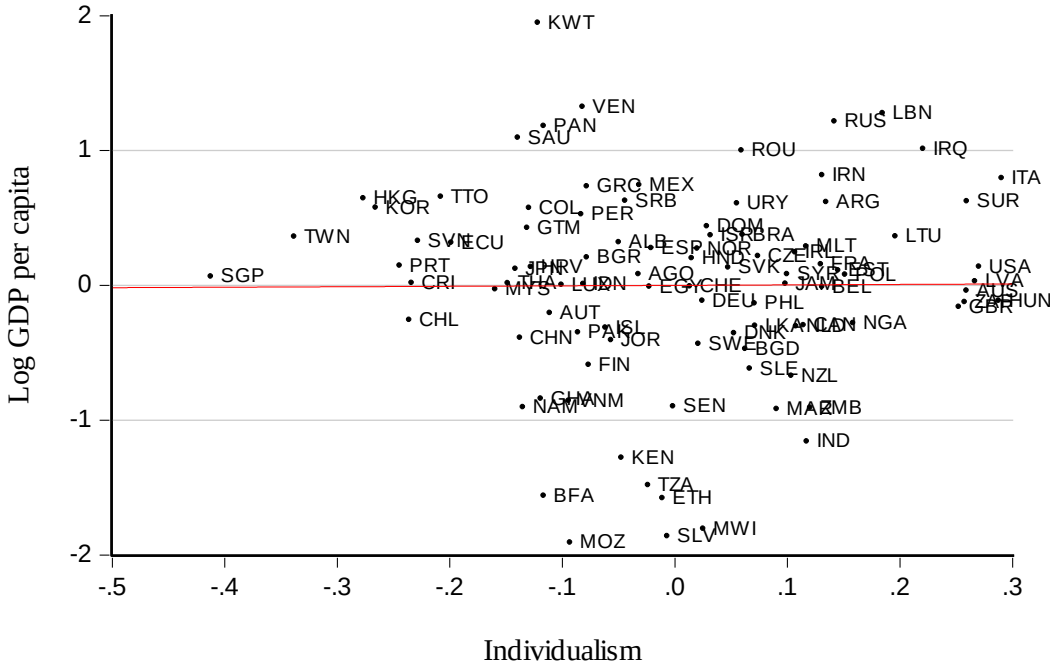

Figure 2. Individualism and economic development controlling for governance

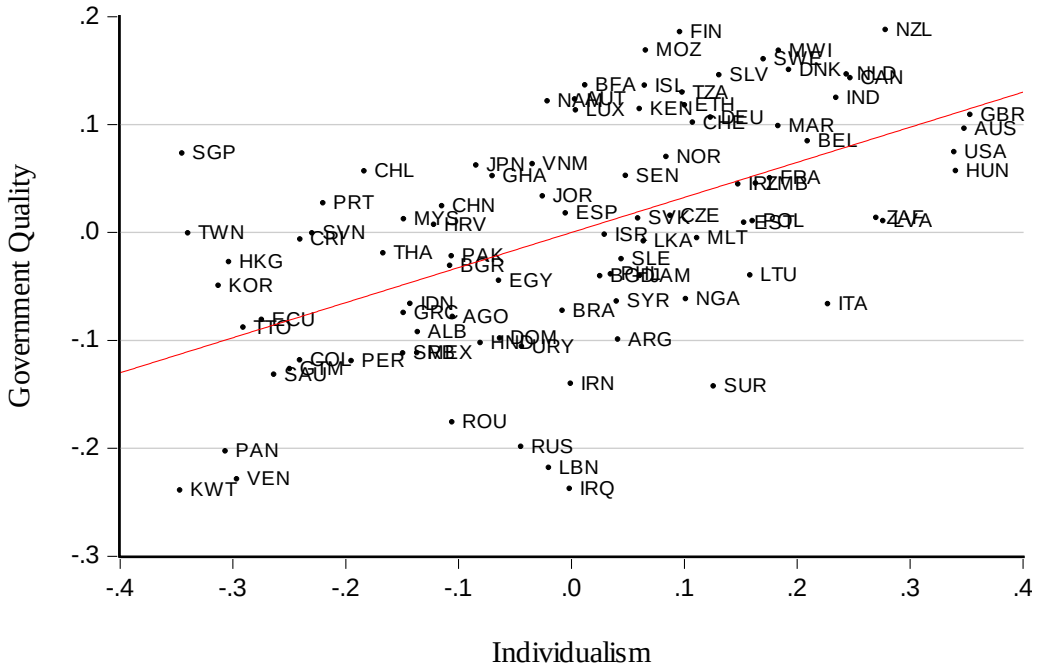

Figure 3. Individualism and governance controlling for economic development

Table 1. Individualism and government quality

	OLS				TSLS			
	Dependent variable is Government Quality							
	1	2	3	4	5	6	7	8
Individualism	0.595***	0.325***	0.285***	0.113*	0.683***	0.460***	0.624*	0.213
	(0.046)	(0.048)	(0.084)	(0.063)	(0.093)	(0.110)	(0.313)	(0.291)
Log of GDP per capita		0.082***		0.090***		0.070***		0.086***
		(0.010)		(0.015)		(0.016)		(0.023)
Controls	NO	NO	YES	YES	NO	NO	YES	YES
No. of observations	94	94	93	93	83	83	82	82
R^2 Adjusted	0.552	0.75	0.695	0.828	0.518	0.724	0.622	0.817
F-statistic from first stage: Pronoun Drop					46.394	41.324	13.960	13.997
	Dependent variable is Individualism							
	9	10	11	12	13	14	15	16
Government Quality	0.935***	0.927***	0.435***	0.306*	0.739***	0.644***	0.530**	0.282
	(0.082)	(0.129)	(0.134)	(0.176)	(0.128)	(0.242)	(0.216)	(0.512)
Log of GDP per capita		0.001		0.025		0.035		0.027
		(0.016)		(0.023)		(0.030)		(0.055)
Controls	NO	NO	YES	YES	NO	NO	YES	YES
No. of observations	94	94	93	93	94	94	93	93
R^2 Adjusted	0.552	0.574	0.704	0.704	0.537	0.529	0.702	0.704
F-statistic from first stage: Legal Origins					10.371	50.339	17.270	27.170

Notes: All regressions include a constant (not shown) and report White heteroskedasticity-robust standard errors in parentheses. *, **, *** Denote statistical significance at the 10, 5, and 1 % levels respectively. Individualism is the Hofstede measure and Government Quality is from the ICRG. Controls are Continental dummies, latitude, the percentage of population practicing Protestantism, Catholicism, Eastern Orthodoxy, Islam, Chinese folk religion, Buddhism or Hinduism. Individualism is instrumented with Pronoun Drop and Government Quality is so by legal origins. When I report the F-statistic from the first stage I indicate the excluded instrument.

Table 2. Individualism, governance and economic development

	Dependent variable is Log of GDP per Capita			
	OLS			
	1	**2**	**3**	**4**
Individualism	3.297***	0.034	1.899***	0.502
	(0.371)	(0.391)	(0.554)	(0.4349)
Government Quality		5.477***		4.896***
		(0.535)		(0.587)
Controls	NO	NO	YES	YES
No. of observations	94	94	93	93
R^2 Adjusted	0.359	0.643	0.648	0.802
	TSLS			
	1	**2**	**3**	**4**
Individualism	3.167***	0.491	4.777**	0.519
	(0.634)	(0.853)	(2.038)	(0.747)
Government Quality		4.109***		6.385***
		(0.876)		(0.904)
Controls	NO	NO	YES	YES
No. of observations	83	83	82	82
R^2 Adjusted	0.333	0.621	0.493	0.756
F-statistic from first stage: Pronoun Drop	46.990	9.935	13.960	14.484
F-statistic from first stage: Legal Origins		12.572		14.543
Over-id test (p-value)		0.113		0.977

Notes: All regressions include a constant (not shown) and report White heteroskedasticity-robust standard errors in parentheses. *, **, *** Denote statistical significance at the 10, 5, and 1 % levels respectively. Individualism is the Hofstede measure and Government Quality is from the ICRG. Controls are Continental dummies, latitude, the percentage of population practicing Protestantism, Catholicism, Eastern Orthodoxy, Islam, Chinese folk religion, Buddhism or Hinduism. Individualism is instrumented with Pronoun Drop while Governance is so by way of legal origins. When I report the F-statistic from the first stage I indicate the excluded instrument(s).

Table 3. Robustness to additional controls, TSLS

	Dependent variable is Log of GDP per Capita					
	1	**2**	**3**	**4**	**5**	**6**
Individualism	0.269	0.449	0.568	0.650	0.039	-0.336
	(0.784)	(0.714)	(0.746)	(0.735)	(0.945)	(1.217)
Government Quality	6.691***	6.441***	5.767***	5.475***	7.643***	8.730***
	(0.947)	(0.945)	(0.923)	(1.263)	(1.226)	(2.881)
Education	0.022					-0.068
	(0.279)					(0.465)
Ethnic Heterogeneity		0.086				0.249
		(0.410)				(0.724)
Interpersonal Inequality			1.748			2.135
			(1.377)			(2.471)
Urban Population				0.871		-0.962
				(0.861)		(1.724)
Generalized Trust					-0.132	0.877
					(1.005)	(1.073)
Controls	YES	YES	YES	YES	YES	YES
No. of observations	77	82	73	81	68	57
R^2 Adjusted	0.740	0.752	0.803	0.782	0.690	0.605
F-statistic from first stage: Pronoun Drop	14.927	13.504	13.020	16.610	11.501	11.179
F-statistic from first stage: Legal origins	18.888	13.559	13.431	16.282	10.612	12.940
Over-id test (p-value)	0.965	0.976	0.415	0.976	0.885	0.810

Notes: All regressions include a constant (not shown) and report White heteroskedasticity-robust standard errors in parentheses. *, **, *** Denote statistical significance at the 10, 5, and 1 % levels respectively. Individualism is the Hofstede measure and Government Quality is from the ICRG. Controls are Continental dummies, latitude, the percentage of population practicing Protestantism, Catholicism, Eastern Orthodoxy, Islam, Chinese folk religion, Buddhism or Hinduism. Individualism is instrumented with Pronoun Drop while Governance is so by way of legal origins. When I report the F-statistic from the first stage I indicate the excluded instrument(s).

Table 4. Robustness to alternative measures of economic development, TSLS

	Log of Income per Worker		Total Factor Productivity		Log of Patents	
	1	**2**	**3**	**4**	**5**	**6**
Individualism	4.627**	0.679	1.444*	0.033	13.807**	2.284
	(1.942)	(0.837)	(0.784)	(0.281)	(6.454)	(3.581)
Government Quality		6.047***		1.924***		10.121**
		(1.037)		(0.331)		(4.656)
Controls	YES	YES	YES	YES	YES	YES
No. of observations	82	82	70	70	75	75
R^2 Adjusted	0.476	0.692		0.357	0.393	0.471
F-statistic from first stage: Pronoun Drop	13.960	14.484	12.395	13.507	13.281	13.870
F-statistic from fist stage: Legal origins		14.543		12.244		13.748
Over-id test (p-value)		0.942		0.132		0.137

Notes: All regressions include a constant (not shown) and report White heteroskedasticity-robust standard errors in parentheses. *, **, *** Denote statistical significance at the 10, 5, and 1 % levels respectively. Individualism is the Hofstede measure and Government Quality is from the ICRG. Controls are Continental dummies, latitude, the percentage of population practicing Protestantism, Catholicism, Eastern Orthodoxy, Islam, Chinese folk religion, Buddhism or Hinduism. Individualism is instrumented with Pronoun Drop while Governance is so by way of legal origins. When I report the F-statistic from the first stage I indicate the excluded instrument(s).

Table 5. Robustness to the Schwartz measure of the I-C dimension

	Dependent variable is Log of GDP per Capita			
	OLS			
	1	**2**	**3**	**4**
Individualism	0.505***	0.240	0.324***	0.050
	(0.050)	(0.069)	(0.058)	(0.070)
Government Quality		3.252***		4.351***
		(0.601)		(0.955)
Controls	NO	NO	YES	YES
No. of observations	61	61	60	60
R^2 Adjusted	0.655	0.774	0.754	0.863
	TSLS			
	1	**2**	**3**	**4**
Individualism	0.554***	0.201	0.398**	0.025
	(0.087)	(0.158)	(0.171)	(0.159)
Government Quality		2.943***		5.840***
		(1.201)		(1.820)
Controls	NO	NO	YES	YES
No. of observations	58	58	57	57
R^2 Adjusted	0.625	0.762	0.725	0.829
F-statistic from first stage: Pronoun Drop	19.673	6.488	11.654	14.003
F-statistic from first stage: Legal Origins		10.369		12.396
Over-id test (p-value)		0.523		0.546

Notes: All regressions include a constant (not shown) and report White heteroskedasticity-robust standard errors in parentheses. *, **, *** Denote statistical significance at the 10, 5, and 1 % levels respectively. Individualism is the first principle component of intellectual and affective autonomies and embeddedness from Schwartz (1994) while Government Quality is from the ICRG. Controls are Continental dummies, latitude, the percentage of population practicing Protestantism, Catholicism, Eastern Orthodoxy, Islam, Chinese folk religion, Buddhism or Hinduism. Individualism is instrumented with Pronoun Drop while Governance is so by way of legal origins. When I report the F-statistic from the first stage I indicate the excluded instrument(s).

Appendix A. Summary statistics

	Mean	Median	Maximum	Minimum	Std. Dev.	N
Individualism-Hofstede	0.396	0.31	0.91	0.06	0.225	94
Indvidualism-Schwartz	0.134	0.103	3.163	-3.256	1.635	61
Government Quality	0.615	0.586	0.947	0.277	0.180	94
Log GDP Per Capita	8.925	9.093	10.811	5.892	1.226	94
Log GDP per Worker	9.842	10.053	11.518	6.819	1.169	94
Total Factor Productivity	0.685	0.682	1.236	0.179	0.240	79
Log Patents	5.517	5.485	12.705	0.511	2.722	87
Latitude	0.338	0.346	0.722	0.011	0.201	94
Protestants 1900	0.151	0.007	0.995	0	0.289	93
Catholics 1900	0.351	0.064	0.999	0	0.412	93
Orthodox 1900	0.055	0.000	0.882	0	0.174	93
Muslim 1900	0.153	0.001	1.000	0	0.299	93
Chinese Folk Religion 1900	0.034	0	0.894	0	0.151	93
Buddhism 1900	0.040	0	0.909	0	0.156	93
Hindu	0.024	0	0.800	0	0.100	93
Education	2.519	2.630	3.504	1.171	0.509	88
Ethnic Heterogeneity	0.398	0.400	0.859	0.002	0.247	94
Interpersonal Inequality	0.389	0.364	0.665	0.252	0.097	83
Urban Population	0.607	0.657	0.100	0.095	0.228	93
Generalized Trust	0.265	0.236	0.695	0.035	0.141	71

Appendix B. Data Definitions and Sources

Individualism - Collectivism Hofstede	I-C according to Hofstede and fully defined in the text. Data normalized and ranges from 0 to 1 with higher values describing a more individualist society: the most current version of the data is available at http://www.geert-hofstede.com/.
Individualism – Collectivism Schwartz	First principle component of the following cultural orientations: intellectual autonomy, affective autonomy embeddedness as defined in the text: Schwartz (2004).
Government Quality	Expert perceptions about investor protection, law and order, corruption and bureaucratic quality (1984-2013), average of the four dimensions. The indicator varies between 0 and 1 and higher values imply higher government quality: International Country Risk Guide, Political Risk Services Group.
GDP per capita	Real GDP per capita at constant prices (1984-2011): Penn World Table 8.0.
GDP per worker	Real GDP per worker at constant prices (1984-2011): Penn World Table 8.0.
Total Factor Productivity	TFP level at current PPPs, USA=1 (1984-2011): Penn World Table 8.0.
Patents	Patent applications by residents (1984-2012): World Development Indicators.
Latitude	Absolute values of latitude of country scaled between 0 and1. (La Porta et al. 1999).
Religion	Religious affiliation (Protestants, Catholic, Eastern Orthodox, Chinese folk religion, Buddhist, Hindu) as a percentage of population in 1900: North et al. (2013).
Education	Index of human capital per person, based on years of schooling and returns to education. (1984-2011): Penn World Table 8.0.
Ethnic heterogeneity	The probability that two randomly selected individuals from a population belonged to different groups, computed as one minus the Herfindahl index of ethnolinguistic group shares: Alesina et al. (2003).
Inequality	Gini coefficient (1984-2012): World Development Indicators.
Urban population	Urban population as a percentage of total (1984-2013): World Development Indicators.
Generalized trust	Percentage of people responding affirmatively to the question:"Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people?" (1981-2008): World Values Survey.
Private credit	Domestic credit to private sector as a percentage of GDP (1984-2013). World Development Indicators.
Pronoun drop	Dummy variable which equals 1 if the rule forbidding first person pronoun drop is operative and 0 otherwise: Abdurazokzoda and Davis (2014).
Legal Origins	Dummy variables which identify the legal origin of the company law or commercial code of each country: (1) English common law; (2) French commercial code; (3) German commercial code; (4) Scandinavian commercial code; (5) socialist communist laws (La Porta et al. 1999).

Appendix C. The exclusion restriction of legal origins

Because of a concern that legal origins may impact on economic development either directly or through some other, uncontrolled for variable I pursue the matter further here. The first two columns of table C1 report the results obtained when regressing GDP per capita on legal origins directly. The fact that the impact of legal origins on GDP per capita all but disappears when adding government quality to the model, suggests that the impact of legal origins passes through government quality.

Table C1.

	Dependant variable is Log of GDP per Capita				
	OLS		**TSLS**		
	1	**2**	**3**	**4**	**5**
Individualism	1.549**	0.478	0.823	4.864*	-0.414
	(0.644)	(0.559)	(1.038)	(2.582)	(0.793)
Government Quality		4.332***	6.855***		6.680***
		(0.768)	(2.324)		(0.987)
French LO	-0.4354*	-0.103			
	(0.247)	(0.220)			
German LO	0.324	0.092			
	(0.269)	(0.206)			
Scandinavian LO	0.010	-0.118			
	(0.440)	(0.350)			
Soviet LO	-1.111***	-0.370*			
	(0.246)	(0.220)			
Private Credit			-0.003		
			(0.007)		
Controls	YES	YES	YES	YES	YES
No. of observations	93	93	81	40	40
R^2 Adjusted	0.708	0.797	0.676		0.677
F-statistic from first stage: Pronoun Drop			14.343	7.657	7.408
F-statistic from fist stage: Legal origins			19.390		9.572
Over-id test (p-value)			0.961		0.231

Notes: All regressions include a constant (not shown) and report White heteroskedasticity-robust standard errors in parentheses. *, **, *** Denote statistical significance at the 10, 5, and 1 % levels respectively. Individualism is the Hofstede measure and Government Quality is from the ICRG. Controls are Continental dummies, latitude, the percentage of population practicing Protestantism, Catholicism, Eastern Orthodoxy, Islam, Chinese folk religion, Buddhism or Hinduism. Individualism is instrumented with Pronoun Drop while Governance is so by way of legal origins. When I report the F-statistic from the first stage I indicate the excluded instrument(s). Columns 4 and 5 are based on a sample excluding Western European colonies (following Hariri 2012).

La Porta et al. (2008) review the legal origins literature and conclude that they affect the allocation of resources through their impact on finance, labor markets, and competition. But, they explain, the empirical evidence shows that rather than affecting aggregate economic growth, legal origins influence the patterns of growth within industries. Notwithstanding this, the authors point to Beck et al. (2000) and Levine et al. (2000) who link legal origins to private credit and from there to economic growth. To account for the effect of legal origins on finance and from there on economic development, in column 3 of table B1, I add private credit as an additional explanatory variable in the second stage. My results remain the same. The last two columns repeat the basic

regressions but based on a sample which excludes Western European colonies. I do this to account for the possibility that legal origins may be picking up the impact of colonization on development for reasons that go beyond legal transplantation (Bertocchi and Canova 2002; Feyrer and Sacerdote 2006). Again my main findings are maintained although the F-statistics from the first stage indicate a potential problem with weak instruments.