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Abstract

This article explains the peculiarities of institutional effects on growth rates in post-communist countries. By proposing a certain dependence of the institution-growth nexus on the mode of institutional grafting, the distinction between drift-phase and path-breaking institutional change is introduced. Theoretical juxtapositions show that transition countries' institutions built through path-breaking institutional reforms differ from those that emerge evolutionarily in the drift phase in a twofold manner in their relationship to growth. Growth rates of their economies are less likely to depend on the quality of legal institutions and are more likely to be a function of the maturity of political institutions. In addition, legal institutional change in the post-communist world is a product of the quality of the political environment to a greater extent than their drift-phase alternatives. These propositions are tested empirically based on a sample of 87 countries derived from the POLITY IV Project's website.

Keywords: *Institutional Economics, Formal Institutions, Institutional Change, Post-Communist Transition*

JEL Classification: O17, O43, O57, P26, P37

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1. Introduction

Growth theory asserts that good formal institutions are conducive to rapid economic development. Empirical studies from economically developed and/or developing countries (Eicher & Leukert, 2009) largely support this claim (see Acemoglu and Robinson (2012) for an overview) but exclude the post-communist world as a unique group from the analysis (Bosworth & Collins, 2003). Research has been conducted independently on these countries and either substantiates conventional findings (see Aslund (2007) for a detailed overview). Or, it recognizes peculiarities concerning the effect that formal institutional frameworks have on economic growth, with the sign and strength of this impact varying depending on the phase of transition or the maturity of formal institutions (Fidrmuc & Tichit, 2009; De Melo, Denizer, Gelb, & Tenev, 1997; Falcetti, Raiser, & Sanfey, 2000).

Studies stemming from post-communist countries go even further and entirely negate the claim that free-market formal institutions *per se* may lead to economic prosperity in the course of transition (Mau, 2008; Polischuk, 2008; Polterovich, 2008). Capitalist formal institutions lack compatibility with post-communist informal norms due to the countries' insignificant historical experience with democracy and free markets (Yasin, 2003) or due to unique features of their economic systems (Polterovich & Popov, 2006). The lack of strong political contexts, which assumes an independent political sector from the economic sector, is believed to hinder these countries from improving formal institutions, as a result of which many transition economies appear to be locked in an institutional trap: Any institutional

improvement is only associated with considerable economic and social losses (Polterovich, 2008).

Irrespective of the sign found in the relationship between formal institutions and economic growth, studies on transition economies possess one common feature: The impact of their formal institutions on growth is rarely tested in conjunction with developed and/or developing countries. An indirect comparison of results is hardly possible, since analyses do not use a standard set of conditioning variables and standard periods that would enable comparing findings. One should note that, in general, growth theory recognizes the existence of heterogeneity in the effects of formal institutions. It is well-established that the direction and strength of institutional impacts on growth vary depending on the maturity level of formal institutions (Barro, 1997; Fidrmuc & Tichit, 2009; Przeworski & Limongi, 1993) or a country's level of economic prosperity (Eicher & Leukert, 2009; Lee & Kim, 2009). However, we doubt that these two explanations are exhaustive for all post-communist countries. Transition economies started their institutional reforms from a relatively similar platform in terms of their level of economic development and the type and degree of institutional maturity but ended up at very different success levels. We argue that the cross-country variation of institutional effects on economic growth can also be attributed to the way in which such institutions were formed. The peculiar relationship of economic institutions to growth rates in transition economies can also be explained by the top-down nature of their institution building and socio-economic forces resulting from this process.

This research's main objective is to juxtapose the post-communist pattern of institution building with the pattern prevalent in other countries to identify implications that this mode of institutional grafting may have for a country's growth dynamics. This study narrows the concept of formal institutions to legal institutions, such as property rights and contract enforcement legislation, since they are viewed as the key to economic growth

(North, 1990) and have been the least successfully reformed in post-communist countries (Aslund, 2007).

2. Analytical Model

Institutional economics distinguishes between two modes of institutional grafting: drift/evolution and critical junctures. The first describes institutional change that evolves in small cumulative stages within an established institutional path. The second considers radical changes that result from a country's exposure to shocks sufficient to break society out of the outmoded, suboptimal path and shift into a new one (Acemoglu & Robinson, 2012). Drawn upon this distinction, we alternatively use the adjective "drift-phase" to describe the evolutionary type of institutional change and the term "path-breaking" when referring to institutional change at critical junctures.

Each mode of institutional change is characterized by a distinct logic of the institution formation process, affecting economic development in a certain way. We introduce a new conceptual framework to juxtapose the two types of institutional grafting processes. Since we primarily focus on the post-communist world, our point of departure is derived from the logic of a free-market economy defined as an economic system based on the exchange of goods and services between economic agents at market prices (Aslund, 2007). Given this definition, we suggest that the formation of legal rules regulating economic processes can be understood by accounting for: (1) economic agents' values and attitudes concerning production and exchange processes; (2) the economic system's structural elements in which production and exchange occur; and (3) the behavior of actors who devise legal rules that regulate interactions concerning production and exchange. Based on this reasoning, we present institutional grafting as shaped by three forces that correspond to three dimensions of the institutional space: (1) cultural, (2) structural, and (3) political.

The first dimension is a cultural one (Boettke, Coyne, & Leeson, 2008; Portes, 2006) which is similar to North's concept of informal institutions (North, 1990). It includes prevalent values/norms that dictate right and wrong, as well as behaviors describing how likely it is that an individual's conduct deviates from their good morals. The second dimension is structural and encompasses economic forces that reflect a country's economic infrastructure and the nature of economic arrangements. It predefines the extent to which a country's economic system is in tune with the logic of free-market economic processes and includes financial and banking systems, taxation, trade union, labor market institutions, industrial relations, etc. The third dimension is called political and includes two aspects: (1) political elites that deal with the formalization of new institutions, and (2) political institutions that comprise the rules that formalize the prevailing political interests into a legal framework.

We argue that legal institutions should be commensurate with the logic of each of the three dimensions in order to function effectively and promote economic development. We further argue that the level of this congruence may vary across the phases of institutional change (drift/evolution or path-breaking/critical junctures) and can be *a priory* identified from the logic of institution building in each of these phases.

The logic of drift-phase institutional change can be described as follows. As economic agents operate, they accumulate knowledge and experiences, which leads to technological advancements and further promotes the division of labor. This changes the organization of production processes in a country and shifts the structural dimension by establishing new industries, competition terms, pricing mechanisms, and conditions of resource allocation across various economic sectors. Profound change in the economic domain leads to transformations in how economic agents think and the values they hold. As a result, existing formal institutions are no longer adequate and commensurate with the existing economic

structures and values among economic agents, thereby raising market transaction costs (North, 1990). Contractual arrangements begin to create demand for institutional change that can lower transaction costs to exploit new opportunities (Pejovich, 1999). In trying to overcome the existing inconsistencies, economic agents introduce informal changes (Eggertsson, 1997) among formal "rules of the game" in order to make the institutional framework more flexible. If efficient and compatible with the interests of political elites (Portes, 2006), these changes are captured by the political system, which formalizes and legalizes them. As a result, they acquire the status of formal institutions. Private international commercial law provides an example of the drift-phase institutional grafting (Boettke et al., 2008): The development of cross-culture exchange in 11th- and 12th-century Europe led to the spontaneous formation of the *lex mercatoria*, an informal system of customary law rooted in international commercial norms (Boettke et al., 2008). These informal institutions appeared to be effective and were later formalized into international commercial law.

The drift-phase institutional change is hence likely to produce legal institutions that are congruent with our model's three dimensions: First, institutional change is initiated by economic agents through the bottom-up approach, as a result of which the new institutions are commensurate with the dominant values. Second, formal institutions are also congruent with the existing economic structure, since changes in the old institutions primarily occur as a reaction to shifts in the economic system or technologies. Third, the political dimension's role in institution creation is inferior and restricted to formalizing institutions. This suggests that the political dimension's quality only weakly determines the quality of institutional change.

The logic of path-breaking institutional change differs substantially from the drift-phase logic. The distinct feature of this mode of institutional change is that shifts in a country's political system, often triggered by a political regime change, precede changes in

its economic system (Fidrmuc, 2003). Such reforms rarely require the population's broad support, since the economic crisis caused by the previous regime's shortcomings serves to justify introducing essential alterations in both political and economic systems (Olson, 1982). Alternatively, the population's dissatisfaction with the current regime can encourage citizens to demand changes in both political and economic domains even if the incumbent elites resist such reforms. Radical political change can occur either through revolutions (Acemoglu & Robinson, 2012), as recent events in Arabic countries demonstrate, or in a peaceful manner without wars and coups (Olson, 1982), as in the majority of post-communist countries during the collapse of socialism (Aslund, 2007).

The radical political alterations require adjusting the institutional framework to the new political logic and promote an immediate introduction of an entirely new set of legal institutions, commensurate with the logic of the new political regime. Many pitfalls exist at various stages of carrying out institutional reforms. First, a shift in the political power and the initial immaturity of new political institutions may create a temporary vacuum of power and opportunities for political or economic elites to seek rents through the new legal institutional framework (Aslund, 2007). Second, even if this is not the case and the population's interests dominate in the process of building a new legal institutional framework, the quality of the new legal institutions ultimately depends on whether the political elites incumbent to handle the institutional grafting are sufficiently familiar with the new economic system and relevant legal rules. Third, since such knowledge and skills are often missing, it is likely that building a new institutional framework involves borrowing legal rules from countries with political and economic orders close to those desired. As a result, the new legal institutions become imposed from without (Pejovich, 1999), which in turn leads to two kinds of problems.

On the one hand, implanting foreign institutions into another local context may disturb their congruence with characteristics of the structural dimension already in force. The

introduction of Western industrial legislation in many post-communist countries is a good example of this. The new rules proved inefficient for post-communist economic systems, since Western legislation was designed for postindustrial societies with a prevalence of medium and small businesses, while many CIS economies were characterized by the overrepresentation of large (state) enterprises (Polterovich & Popov, 2006). On the other hand, a similar incongruence may also emerge between the new legal institutions and the local cultural dimension (Boettke et al., 2008; Kyriazis & Zouboulakis, 2005; Portes, 2006). Because culture is unique, economic agents may perceive and interpret the newly imported legal rules through the prism of their specific values, as a result of which the meanings assigned by economic agents to the new laws might appear completely different from their initial context (Portes, 2006). This may further lead to a mutation of the new legal institutions (Vernikov, 2009) or low levels of their enforcement (Portes, 2006).

The learning experience is expected to minimize or eliminate both kinds of incongruence (Nelson & Sampat, 2001). If policymakers design and introduce adjustment policies for the system's orderly operation at each stage during the transition period, the incompatibility between the new legal institutions and economic structures is believed to be gradually narrowed. Similarly, if economic actors learn that adapting to the new legal institutions can expand their opportunity set, they may change their cultural values and behaviors. For instance, post-communist countries in which new democratic governments successfully introduced economic reforms experienced a rise in pro-democratic attitudes among citizens (Aslund, 2007). Successful reformers have also nurtured strong support for a free-market economy (Aslund, 2007). These learning processes imply, however, that there are lags between fundamental institutional change being initiated and the time when the relevant actors get the structures right (Eggertsson, 1997), producing a positive impact for the local economy only in later periods (De Melo et al., 1997; Falcetti et al., 2000).

Japan’s post-war reconstruction and transition from socialism to capitalism, which included changes in the political regime, major economic rules, and legislation, are good examples of the path-breaking approach to institutional grafting (Boettke et al., 2008). Overall, the path-breaking process of institution formation is unlikely to produce legal institutions that are congruent with our model's three dimensions: First, institutional change is profound and may include the top-down introduction of radical institutional reforms by implanting foreign institutions into the local systems. It is possible that these legal institutions will be incongruent with existing cultures, at least at the initial reform stage. Second, similar incongruence may also exist between the new legal institutions and the current economic structure for the same reason as above. Third, the political dimension’s role is superior and cannot be confined to legalizing new institutions but extends to their selection, design, introduction, and subsequent adjustments to the cultural and structural dimensions in place. The quality of new legal institutions might hence depend on the quality of the country's political change and the professionalism of political elites incumbent to handle institutional grafting under the new conditions.

The above discussion suggests that the odds of ensuring congruence between the new legal institutions and the three dimensions differ substantially for the two modes of institutional change. This allows us to argue that economies might be endowed with different opportunity sets for growth, depending on the mode of institutional grafting through which the new legal institutions emerge:

Proposition 1: Because legal institutions formed in the drift phase are more likely to be congruent with the three dimensions, they will more effectively enhance economic development than legal institutions introduced at critical junctures. The rationale behind our reasoning is that when this congruence exists, fewer frictions emerge in the interactions

between economic agents, making more transactions possible and leading to higher rates of economic growth.

Proposition 2: Since the political dimension's role is superior at critical junctures, we expect that the political dimension's quality is of particular importance to the country's growth rate during the path-breaking institutional reforms. We identify two major mechanisms through which the political dimension's role manifests itself: (a) mitigating the negative impact of incongruence between the new legal institutions and the cultural or structural dimensions on economic growth (see Proposition 3) and (b) designing and introducing new legal institutions that are not only of good qualities but also congruent with the existing cultural and structural dimensions (see Proposition 4).

Proposition 3: Since critical junctures are more likely to produce legal institutions that are incongruent with the cultural and structural dimensions, a country's growth rates become a function of the ability of political elites to adjust economic structures and/or cultures to the new legal institutions' logic. By contrast, the drift-phase institutional reforms produce legal institutions congruent with our model's dimensions and hence seldom require such adaptation measures or coordinating actions on the part of the government.

Proposition 4: Since path-breaking institutional change at critical junctures presupposes a radical transformation of the entire institutional framework through a top-down approach, the quality of the new legal institutions becomes a function of the experience and skillfulness of political elites who handle the institutional grafting process. Their ability to choose the appropriate set of institutions determines the extent to which institution building processes are successful and newly imported legal institutions are of good qualities and congruent with local cultures and existing economic structures.

Based on these propositions, we postulate the following hypotheses:

Hypothesis 1: A positive impact of legal institutions on economic growth is greater when these institutions emerge in the drift phase rather than at critical junctures.

Hypothesis 2: The political dimension's positive impact on economic growth is greater at critical junctures than in the drift phase of institutional grafting.

Hypothesis 3: At critical junctures, the negative impact of incongruence on economic growth is smaller where the political dimension is of better quality.

Hypothesis 4: The political dimension's positive impact on the quality of legal institutional change is greater at critical junctures than in the drift phase.

3. Data and Method Description

To test these hypotheses, we use Eicher's and Leukert's (2009) approach of splitting the sample into subsamples and conducting an empirical analysis for each of them. In forming our subsamples, we use the idea that institutional change at critical junctures presupposes a simultaneous transformation of the entire framework of formal institutions. Since such a radical transformation usually occurs because of a shift in the nature of economic relations and the logic of economic processes, we assume that only a political regime change can initiate path-breaking legal institutional reforms. This idea is also in line with the hierarchy of institutions hypothesis that views formal legal institutions as a function of political institutions within which a certain political regime is embedded (Eicher & Leukert, 2009).

To identify whether a country has experienced recent changes in its political regime, we use the POLITY IV Project's website (http://www.systemicpeace.org/polity/polity4.htm), which provides information about political regime characteristics and transitions between 1800 and 2012 with a polity score for a wide range of countries (see https://mpra.ub.uni-muenchen.de/68648/1/MPRA_paper_68648.pdf for a country choice description). The values of a country's annual polity score range from -10 to 10, with values 6 and above denoting full

democracy and -6 and below denoting full autocracy. In our analysis, a country qualifies as being at critical junctures if: (1) there was a political regime change in which values shifted from at least -6 or below to at least 6 and above; (2) this change is rapid and occurred within a few years; (3) this change occurred after 1970. Any earlier transition is expected to produce institutions that would adhere to the local structural and cultural characteristics through the learning process and eliminate any incongruence. In this case, the new formal institutions would follow an evolutionary or drift-phase path in their maturation process; (4) the change is stable with no signs of reverting to the previous regime in the following years; (5) there have not been persistent fluctuations in the regime trend of more than 3 points since 1970. Regime trend fluctuations denote political instability, which is a separate issue with respect to growth analysis and has both positive and negative effects on economic development (Jong-A-Pin, 2009).

Since we are primarily interested in transition economies, our base path-breaking subsample only includes 21 post-communist countries that correspond to the above criteria. One should note that these countries are relatively heterogeneous in their historical trends (Soviet Union membership, experience with private property during communism, etc.) and present characteristics (EU membership, democracy types, etc.). We justify unifying them in one sample, because they all had a one-party political regime during communism with a centrally planned economic system. And they all underwent a profound institutional transformation with the same target: Transition to a free market economy and the introduction of democracy, which involved a radical change in the rules governing both political and economic processes. The fact that they slightly differ in their starting points does not contradict the purpose of our analysis, since the quantitative impact of initial conditions on the set of reforms and economic growth is small and tends to rapidly decline over time (Berg, Borensztein, Sahay, & Zettelmeyer, 1999; Falcetti et al., 2000). To ensure that the

empirical results are not unique to post-communist countries, we expand the path-breaking subsample by including non-post-communist countries that meet the above criteria, thereby increasing this subsample to 42 countries.

Countries that have not experienced political regime change or have experienced profound but gradual change (each stage of change not being greater than a 3-point fluctuation in the polity score) are considered to be in the drift phase. The base drift subsample is limited to 22 old and stable democracies or autocracies to avoid a disproportionate subsample size. Since most of these countries are relatively advanced in their economic development, we expand this subsample by adding other developed and developing countries, augmenting this subsample to 45 countries. Appendix 1 lists the countries included in the analysis. One should note that some of these countries lack data on institutional or political indexes, which results in a smaller number of cases actually used in each type of analysis.

We are primarily interested in comparing how formal legal and political institutions impact economic growth for the two country groups: evolutionary/drift versus path-breaking/critical junctures. The quality of legal institutions is approximated through a contract enforcement and property rights protection index sourced from the 2007 Economic Freedom of the World annual report (see Gwartney, Lawson, Sobel, & Leeson (2007) for the detailed description of the index composition). The values vary from 1 (bad legal institutions) to 10 (good legal institutions). Formal institutions are considered to be good when they are clearly defined and well-enforced, which means that the institutional scores are closer to 10.

The political dimension's quality is measured through the control of corruption in government, government effectiveness, the quality of regulation, and voice and accountability. All political indexes are sourced from the World Bank Group database and vary from -2.5 (bad political situation) to 2.5 (ideal political situation). The four indexes are

highly correlated, with the voice and accountability index showing the greatest uniqueness in its variance (due to space limits, we do not report factor loading and unique variances for political scores, but they can be sent upon request). We use this index to describe the quality of democratic settings in a country and hence the quality of political institutions. The three remaining indexes are combined by using the STATA *predict* option for factor analysis to construct a single measure of the policymaking quality which is expected to approximate the political elites' quality. Table 1 presents descriptive statistics for the key variables (see table 1).

[insert Table 1 here]

We follow Tabellini (2008) in measuring the cultural dimension through the four aspects (control, respect, trust, and obedience) and source the relevant measures from the World Values Survey. Obedience represents the percentage of people in the sample who mentioned obedience as an important factor in society. Trust and respect are positive responses to questions about trusting most of the people and whether most people show tolerance and respect towards others. Control is operationalized through the question about how much freedom of choice and control people have over their own lives. The aggregate variable is constructed by adding up the values of control, respect, and trust, and subtracting the value of obedience. Since many countries included in the subsamples participated in one wave of the WVS, the cultural variable is available only on a cross-sectional basis.

We follow Eicher and Schreiber (2010) in operationalizing the structural dimension and utilize the EBRD measures to construct a structural policy index, consisting of price liberalization, foreign exchange/trade liberalization, small/large scale privatization, enterprise reform, competition policy reform, banking sector reform, and non-banking financial institutional reform. We use the STATA *predict* option for factor analysis to create a single

construct. We limit the analysis of the structural dimension to the base path-breaking subsample, since the relevant data are only available for this set of countries.

To test our hypotheses empirically, we use the dynamic GMM method proposed by Arellano and Bond (Arellano & Bover, 1995; Blundell & Bond, 1998). The procedure for applying this technique is well-documented by Eicher and Schreiber (2010), Lee and Kim (2009), and Pääkkönen (2010). It requires that the equation is first-differenced to eliminate the heterogeneity in production functions and then an instrumental variable method is applied on the differenced model, with lagged values of the endogenous variables used as instruments for the variables themselves. To avoid an overfitting bias, we often restrict instruments to only few lags of the respective variables. We further use the STATA *collapse* sub-option to create one instrument for each variable and lag distance rather than one for each time period, variable, and lag distance. We also add the sub-options *small* to request small-sample corrections to the covariance matrix estimate. We calculate a two step estimator instead of a one step. Additionally, we use the sub-option *noleveleq* that invokes difference instead of system GMM. To demonstrate the correctness of the model, we report the number of instruments generated by the model, the results from *a Hansen overidentification test*, and *the Arellano-Bond test for AR(2)* serial correlation in the residuals. STATA command *extabond2* is used for calculating the model parameters.

In line with Pääkkönen's study (2010), we utilize yearly data for the period from 1996 to 2008. We exclude the initial transition years from the analysis, since the outset of transition entailed profound systemic changes (Fidrmuc, 2003). We apply the same model to both subsamples while ensuring that a standard set of conditioning variables and standard periods are used. Our base growth model includes two variables: investment and inflation. Investment is included, since it is the key predictor in the majority of growth models (Solow, 1956). Macroeconomic stability is, in turn, considered a precondition for economic recovery

during transition in the post-communist world (Fischer, Sahay, & Vegh, 1996). Hence, the base model is:

$$lnY_{it} = \alpha lnY_{it-1} + \beta_1 lnK_{it} + \beta_2 lnMS_{it} + \varepsilon_{it} \quad (1)$$

Where Y_{it} is a measure of economic development limited to economic growth and operationalized through an annual real GDP growth rate, Y_{it-1} is one-period-lagged economic growth. *K* stands for the investment in physical capital measured through gross capital formation as a percentage of GDP. *MS* represents macroeconomic stability captured by annual consumer price inflation. The main source for the above variables is the World Bank electronic database.

We begin the analysis with testing the key premise of our theoretical model that incongruence between the new legal institutions and our model's three dimensions is detrimental to economic growth:

$$lnY_{it} = \alpha lnY_{it-1} + \beta_1 lnK_{it} + \beta_2 lnMS_{it} + \beta_3 D\_Culture_{it} + \beta_4 D\_Structure_{it} + \beta_5 D\_Politics_{it} + \varepsilon_{it} \quad (2)$$

Where *D_* is a measure of incongruence expressed through the distance between the quality of a country's legal institutions and one of the three dimensions and calculated as follows: *Distance = [(Legal institutional index - Dimensions' value) / Dimensions' value]*. Since cultural measures are available on a cross-sectional basis, we calculate annual distances between legal institutions and the cultural dimension as differences between legal scores for every year and the constant cultural scores.

We further include formal legal institutions (*LI)* into the base model:

$$lnY_{it} = \alpha lnY_{it-1} + \beta_1 lnK_{it} + \beta_2 lnMS_{it} + \beta_3 LI_{it} + \varepsilon_{it} \quad (3)$$

Similarly, we include political dimension indexes (*PI*) into the base model as:

$$lnY_{it} = \alpha lnY_{it-1} + \beta_1 lnK_{it} + \beta_2 lnMS_{it} + \beta_3 PI_{it} + \varepsilon_{it} \quad (4)$$

At this stage of the analysis, we are able to compare the coefficient estimates of the legal institutional variable, *LI*, and the political dimension variable, *PI*, between the drift and path-breaking subsamples.

We further analyze the political dimension's role in mitigating the detrimental impact of incongruence on economic growth by allowing interactions between the distance variables and the political dimension's measures:

$$lnY_{it} = \alpha lnY_{it-1} + \beta_1 lnK_{it} + \beta_2 lnMS_{it} + \beta_3 PI_{it} + \beta_4 D\_Culture_{it} + \beta_5 D\_Structure_{it} + \beta_6 PI*D\_Culture_{it} + \beta_7 PI*D\_Structure_{it} + \varepsilon_{it} \quad (5)$$

Where *PI*D_Culture* and *PI*D_Structure* are interaction terms between the political indexes and distances that legal institutions develop to culture or economic structure respectively.

We proceed with exploring the impact of political indexes on the quality of legal institutional change:

$$LI\_change_{it} = \alpha LI_{it-1} + \rho_1 Life\_expect_{it} + Latitude_i + \rho_2 PI_{it} + \mu_{it} \quad (6)$$

Where *LI_change* stands for an annual change in the legal institutional index during the period analyzed and is calculated as [(Legal Institutional Index in year t - Legal Institutional Index in year (t-1)] / Legal Institutional Index in year (t-1). LI_{it-1} is a lagged value of the legal institutional index, *PI* is political indexes, and *Life_expect* stands for life expectancy as in Acemoglu, Johnson, and Robinson (2001) and Islam (2004).

4. Empirical Results

Our data confirm the idea that path-breaking institutional reforms are more likely to produce institutions that are incongruent with our model's three dimensions (see table 2). The absolute values of the distance variables are greater for the path-breaking subsamples than for the drift subsamples. The only exception is the distance to the political institutions' quality that proves greater in the drift phase than at critical junctures.

We also receive support for our key assumption that the distance between legal institutions and the three dimensions may worsen a transition country's economic performance (see table 3). A similar relationship is found for the extended drift subsample, but only partially confirmed for the extended path-breaking subsample (see table 4). The lack of complete evidence for the extended path-breaking subsample can be attributed to a great number of missing values for the cultural variable. Concerning the political elites index, this may also mean that at critical junctures, what matters is not the distance that legal institutions develop to the political dimension, but the actual quality of this political dimension.

[insert Table 2, Table 3 and Table 4 here]

Our empirical results also confirm the idea of heterogeneity in the impact of legal and political indexes on the economic growth. Legal institutions strongly affect growth rates of economies operating within the institutions formed via drift-phase institutional change (see tables 5 and 6).When the analysis shifts to the path-breaking subsamples, we still establish a

positive relationship between legal institutional indexes and growth rates but this impact is substantially smaller compared to the drift subsamples. This is in line with Hypothesis 1. These results stand up to the alternative model specification choice and to the exclusion of resource-rich countries from the analysis.

[insert Table 5 and Table 6 here]

Tables 7 to 10 juxtapose the impact of the political dimension on economic growth between the drift and critical juncture subsamples. The results are largely consistent with hypothesis 2 and suggest that economies operating within a path-breaking institutional framework are more sensitive to the quality of their political sector, especially concerning political elites. In the case of the drift subsamples, it is more important that strong political institutions exist to allow these economies to grow faster. The results also remain robust to alternative model specification choices or to the exclusion of resource rich countries from the extended subsamples.

[insert Table 7, Table 8, Table 9 and Table 10 here]

To further understand the political dimension's role at critical junctures, we introduce interactions between political indexes and the distance between legal institutions and our model's dimensions. The negative main effect (see table 11) suggests that increasing the distance to the cultural or structural dimensions may slow down economic growth. The positive coefficient estimates on the interaction terms further suggest that the mature political environment may cushion the negative impact of this distance, supporting hypothesis 3. The interaction effect is especially strong for the extended path-breaking subsample.

[insert Table 11 here]

Our results also indicate that during the path-breaking institutional reforms, the political dimension's quality is instrumental in building legal institutions (see table 12), especially concerning the quality of political elites. By contrast, a drift-phase institutional

change is relatively independent from the quality of political elites but proves influenced by political institutions' quality. Similarly, the distance variables' negative impact on the legal institutional change can be mitigated when the political dimension's quality improves (see table 13). Both findings are consistent with hypothesis 4.

[insert Table 12 and Table 13 here]

Overall, the empirical analysis supports the original hypotheses. Moreover, the results can be considered robust given the selected robustness check strategies: (1) the drift subsample included economically developing countries to avoid the difference in coefficients being caused by variances in the level of economic or institutional maturity between the two country groups; (2) we included non-post-communist countries in the path-breaking subsample to verify whether the specificities found for post-communist countries are universal or unique to the post-communist world; (3) we eliminated resource rich countries and small economies from both subsamples. The list of such countries was retrieved from Mankiw, Romer, and Weil (1992). One should note that the results for transition economies (the base path-breaking subsample) show slight peculiarities as compared to other countries from the extended path-breaking subsample. We believe that this difference is due to specificities of the socialist regime. While Communism represented a dictatorship, it was characterized by relatively high industrialization levels, albeit militarized to a great extent, a highly educated labor force, high levels of urbanization, and extended social programs.

5. Conclusion and Discussion

This study introduces the idea that institutional grafting is shaped by three forces: cultural, structural, and political. The success of institutional reforms is viewed as dependent not only on the actual quality of newly introduced legal institutions but also on the level of congruence that these institutions develop to the three dimensions. The potential size of this congruence

is considered a function of the phase in which such institutions emerge. Drift-phase institutional change produces legal institutions that are congruent with the logic of the three dimensions and that promote economic development. Path-breaking institutional change in contrast leads to the emergence of institutions that develop distances to the defined dimensions and that, thereby, have only a limited impact on growth rates. In this case, the actual quality of the political dimension will predetermine both a local economy's growth dynamics and the success of institutional change.

Future research is needed to eliminate three major limitations of our study. First, a more careful grouping of countries for both subsamples is necessary to eliminate stark heterogeneities in their political, economic, social, and historical characteristics. Second, one should consider integrating countries with unstable regime trends into the analysis. Finally, alternative economic development measures should be used to demonstrate the robustness of our findings on the impact that the mode of institution building has on patterns of economic progress in the world.

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Table 1 Descriptive Statistics for Key Variables of the Extended Subsamples

VARIABLES	No. of observations	Mean	SD	Min.	Max.
The extended drift subsample					
GDP per capita growth	528	2.839	3.521	-5.930	31.800
Legal institutions	426	0.720	0.193	0.125	1.000
The political dimension					
Political institutions	440	0.658	0.274	0.118	1.000
Political elites	449	0.631	0.241	0.098	1.000
The cultural dimension	300	0.418	0.258	0.070	1.000
The structural dimension	*Not available*				
Distance to the political dimension					
Distance to political institutions	384	0.276	0.745	-0.437	4.214
Distance to political elites	383	0.175	0.312	-0.562	1.873
Distance to the cultural dimension	236	1.501	1.666	-0.483	7.613
Distance to the structural dimension	*Not available*				
Corruption perception index	462	6.236	2.436	1.400	10.000
Gross capital formation	534	23.277	8.185	8.000	114.000
Inflation	526	4.129	4.740	-13.800	34.700
Life expectancy	540	73.156	9.054	35.000	85.000
Legal institutional change	383	0.017	0.179	-0.767	1.422
Latitude	540	0.373	0.202	0.014	0.711
The extended path-breaking subsample					
GDP per capita growth	492	3.648	4.319	-17.690	26.000
Legal institutions	369	0.532	0.126	0.198	0.906
The political dimension					
Political institutions	420	0.587	0.147	0.212	0.851
Political elites	418	0.414	0.128	0.194	0.713
The cultural dimension	384	0.279	0.163	0.095	0.825
The structural dimension	252	0.683	0.186	0.000	1.000
Distance to the political dimension					
Distance to political institutions	337	-0.087	0.272	-0.622	1.681
Distance to political elites	336	0.312	0.343	-0.344	1.403
Distance to the cultural dimension	284	1.605	1.472	-0.596	5.485
Distance to the structural dimension	174	-0.187	0.169	-0.585	0.711
Corruption perception index	397	3.395	1.164	0.400	6.900
Gross capital formation	502	23.476	7.110	6.000	75.000
Inflation	502	9.894	13.061	-9.600	121.600
Life expectancy	504	67.486	8.681	41.000	80.000
Legal institutional change	327	0.030	0.185	-0.432	1.595
Latitude	492	0.368	0.185	0.056	0.667

Note: The legal institutional scores and the three dimensions' variables are rescaled to vary between 0 and 1. The minimum and maximum values of the respective variables from the pooled sample are used as benchmarks for rescaling.

Table 2 Mean Values for the Distance Variables, by Mode of Institutional Grafting

VARIABLES	The drift subsample		The path-breaking subsample	
	Base	Extended	Base	Extended
Distance to the political dimension				
Distance to political institutions' quality	0.087	0.276	-0.017	-0.087
Distance to political elites' quality	0.084	0.175	0.305	0.312
Distance to the cultural dimension	1.037	1.501	1.682	1.605
Distance to the structural dimension	*Not available*	*Not available*	-0.187	*Not available*

Table 3 The Impact of the Distance Variables on Economic Growth for the Base Subsamples

VARIABLES	The base path-breaking subsample			
	(1)	(2)	(3)	(4)
Ln(Growth rate)$_{t-1}$	0.098***	0.028	-0.060	0.056***
	(0.025)	(0.049)	(0.044)	(0.015)
Ln(Capital)	0.563***	0.211	0.506***	0.247**
	(0.049)	(0.151)	(0.153)	(0.118)
Ln(Inflation)	-0.133***	-0.108***	-0.079***	-0.115***
	(0.019)	(0.028)	(0.022)	(0.013)
Distance to the cultural dimension	-0.141***			
	(0.042)			
Distance to the political dimension				
Distance to political institutions' quality		-0.183*		
		(0.089)		
Distance to political elites' quality			-0.317***	
			(0.082)	
Distance to the structural dimension				-0.598**
				(0.223)
Number of instruments	21	19	19	21
Hansen test of overid. restrictions (Prob > chi2)	0.424	0.322	0.269	0.410
Arellano-Bond test for AR(2)(Pr > z)	0.322	0.453	0.458	0.252
Number of observations	130	105	105	130
Number of countries	21	21	21	21

Note: Standard errors in parentheses. Results are only reported for the base path-breaking subsample. We do not run a similar analysis for the base drift subsample due to a great number of missing values for the cultural variable and the lack of data for the structural variable. All the variables specified in the model are included in the gmmstyle option. Instruments are restricted to the first, second and third lags of the respective variables; time dummies appear in the ivstyle option.
*p < .10. ** p < .05. *** p < .01.

Table 4 The Impact of the Distance Variables on Economic Growth for the Extended Subsamples

VARIABLES	The extended drift subsample			The extended path-breaking subsample		
	(1)	(2)	(3)	(4)	(5)	(6)
Ln(Growth rate)$_{t-1}$	-0.145***	-0.216***	0.098***	0.021	0.245***	0.254***
	(0.041)	(0.004)	(0.034)	(0.051)	(0.043)	(0.046)
Ln(Capital)	2.771***	3.498***	2.084***	0.068	0.978***	0.614*
	(0.658)	(0.274)	(0.581)	(0.174)	(0.332)	(0.304)
Ln(Inflation)	-0.396***	-0.307***	-0.336***	-0.158***	-0.039	-0.113***
	(0.103)	(0.030)	(0.064)	(0.032)	(0.053)	(0.036)
Distance to the cultural dimension	-0.610***			0.448***		
	(0.086)			(0.088)		
Distance to the political dimension						
Distance to political institutions' quality		-0.222***			-0.702**	
		(0.033)			(0.282)	
Distance to political elites' quality			-1.082***			0.378*
			(0.373)			(0.197)
Number of instruments	21	35	27	29	27	27
Hansen test of overid. restrictions (Prob > chi2)	0.383	0.278	0.404	0.451	0.192	0.136
Arellano-Bond test for AR(2)(Pr > z)	0.547	0.223	0.390	0.105	0.566	0.354
Number of observations						
Number of countries	140	186	186	192	190	190
Number of instruments	24	42	42	32	40	40

Note: Standard errors in parentheses. All the variables specified in the model are included in the gmmstyle option; time dummies appear in the ivstyle option. Column (1): Instruments are restricted to the first, second and third lags of the respective variables; Column (2): Instruments are increased to the seventh lags of the respective variables; Column (3): Instruments used are from the second to the sixth lags of the respective variables; Columns (4, 5 and 6): Instruments used are from the fifth to the ninth lags of the respective variables.

*p < .10. ** p < .05. *** p < .01.

Table 5 The Impact of Legal Institutions on Economic Growth for the Base Subsamples

VARIABLES	The base drift subsample				The base path-breaking subsample			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
Ln(Growth rate)$_{t-1}$	0.113	-0.095***	0.216**	0.121	0.069	0.166***	0.077	0.214
	(0.133)	(0.019)	(0.083)	(0.141)	(0.061)	(0.036)	(0.070)	(0.137)
Ln(Capital)	3.790***	4.154***	3.340***	4.813**	-0.500	-0.475	0.508*	-0.492
	(1.303)	(0.537)	(1.106)	(2.018)	(0.517)	(0.295)	(0.282)	(0.544)
Ln(Inflation)	-0.343	-0.490***	-0.514***	-0.744**	-0.059	-0.083**	-0.255***	-0.120**
	(0.214)	(0.084)	(0.148)	(0.316)	(0.044)	(0.034)	(0.051)	(0.053)
Legal institutions	10.440***	2.098**	9.473***	6.705*	-0.630	0.759***	0.421	1.146**
	(2.867)	(1.008)	(2.400)	(3.574)	(0.871)	(0.208)	(0.571)	(0.475)
Number of instruments	13	21	17	13	13	21	17	13
Hansen test of overid. restrictions (Prob > chi2)	0.252	0.507	0.239	0.123	0.196	0.333	0.178	0.140
Arellano-Bond test for AR(2)(Pr > z)	0.462	0.104	0.567	0.287	0.289	0.304	0.221	0.347
Number of observations	128	128	128	128	130	130	130	130
Number of countries	22	22	22	22	21	21	21	21

Note: Standard errors in parentheses. Column (1): All the variables specified in the model are included in the gmmstyle option. Instruments are restricted to the third, fourth and fifth lags of the respective variables; Column (2): In addition to the above specification choice, time dummies appear in the ivstyle option; Column (3): An alternative model specification choice is used such as restricting instruments to the ninth and tenth lags of the respective variables; Column (4): An alternative model specification choice is used such as restricting instruments to the fifth lags of the respective variables and omitting the collapse sub-option.
*p < .10. ** p < .05. *** p < .01.

Table 6 The Impact of Legal Institutions on Economic Growth for the Extended Subsamples

VARIABLES	The extended drift subsample				The extended path-breaking subsample			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
Ln(Growth rate)$_{t-1}$	-0.098	-0.227***	0.071*	-0.205***	0.011	0.060***	-0.012	0.033*
	(0.064)	(0.011)	(0.037)	(0.011)	(0.074)	(0.020)	(0.076)	(0.019)
Ln(Capital)	3.294***	3.021***	3.063***	2.451***	0.628	0.701**	0.933**	-0.002
	(0.801)	(0.384)	(0.848)	(0.611)	(0.441)	(0.289)	(0.425)	(0.092)
Ln(Inflation)	-0.485***	-0.491***	-0.433***	-0.357***	-0.085	-0.081**	-0.084*	-0.143***
	(0.120)	(0.099)	(0.130)	(0.042)	(0.060)	(0.031)	(0.044)	(0.024)
Legal institutions	1.883*	3.717***	4.623***	2.361***	1.876**	1.656***	1.497**	1.915***
	(0.933)	(0.550)	(0.799)	(0.311)	(0.693)	(0.414)	(0.594)	(0.331)
Number of instruments	26	35	26	33	26	35	26	33
Hansen test of overid. restrictions (Prob > chi2)	0.292	0.348	0.209	0.567	0.125	0.338	0.123	0.214
Arellano-Bond test for AR(2)(Pr > z)	0.319	0.195	0.815	0.209	0.092	0.103	0.153	0.106
Number of observations	236	236	190	190	227	227	213	213
Number of countries	42	42	33	33	40	40	37	37

Note: Standard errors in parentheses. Column (1): All the variables specified in the model are included in the gmmstyle option. Instruments are restricted to the ninth and tenth lags of the respective variables. The collapse sub-option is not included. Time dummies appear in the ivstyle option; Column (2): An alternative model specification choice is used such as restricting instruments to the sixth lags of the respective variables and including the collapse sub-option; Column (3): Resource rich countries are excluded from the analysis; specification choice of Model 1 is applied; Column (4): Resource rich countries are excluded from the analysis; the specification choice from Model 2 is applied with the collapse suboption added in order to keep the number of instruments less than the number of countries.
* p < .10. ** p < .05. *** p < .01.

Table 7 The Impact of Political Institutions on Economic Growth for the Base Subsamples

VARIABLES	The base drift subsample			The base path-breaking subsample		
	(1)	(2)	(3)	(1)	(2)	(3)
Ln(Growth rate)$_{t-1}$	-0.087***	-0.144***	-0.599***	-0.167	-0.021*	0.464**
	(0.029)	(0.011)	(0.116)	(0.099)	(0.011)	(0.195)
Ln(Capital)	-0.436	1.279**	7.508***	-0.205	0.429***	1.374***
	(1.168)	(0.609)	(0.930)	(0.360)	(0.062)	(0.441)
Ln(Inflation)	-0.118	-0.349***	-0.421***	-0.039	-0.113***	-0.455***
	(0.101)	(0.066)	(0.137)	(0.034)	(0.026)	(0.117)
Political institutions	11.280***	3.188*	4.542**	4.608	1.068	2.125**
	(2.194)	(1.733)	(1.826)	(5.167)	(1.547)	(0.770)
Number of instruments	13	19	15	13	19	15
Hansen test of overid. restrictions (Prob > chi2)	0.123	0.359	0.329	0.066	0.243	0.124
Arellano-Bond test for AR(2)(Pr > z)	0.110	0.079	0.107	0.122	0.338	0.636
Number of observations	100	100	100	116	116	116
Number of countries	22	22	22	21	21	21

Note: Standard errors in parentheses. Column (1): All the variables specified in the model are included in the gmmstyle option. Instruments are restricted to the first, second and third lags of the respective variables; (2) Additionally, time dummies appear in the ivstyle option; (3) An alternative model specification choice is used such as restricting instruments only to the tenth lags of the respective variables and omitting the collapse sub-option.
* p < .10. ** p < .05. *** p < .01.

Table 8 The Impact of Political Institutions on Economic Growth for the Extended Subsamples

VARIABLES	The extended drift subsample				The extended path-breaking subsample			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
Ln(Growth rate)$_{t-1}$	-0.200***	-0.191***	-0.214***	-0.219***	-0.057*	-0.062***	-0.043	0.037
	(0.007)	(0.005)	(0.021)	(0.003)	(0.029)	(0.018)	(0.038)	(0.034)
Ln(Capital)	2.119***	2.736***	2.875***	4.198***	0.150	0.036	0.204	0.085
	(0.626)	(0.219)	(0.767)	(0.204)	(0.137)	(0.023)	(0.185)	(0.112)
Ln(Inflation)	-0.224***	-0.253***	-0.297***	-0.254***	-0.032	-0.037***	-0.083***	-0.076***
	(0.052)	(0.035)	(0.072)	(0.022)	(0.021)	(0.012)	(0.030)	(0.020)
Political institutions	3.236***	3.320***	4.403***	3.140***	7.139***	8.230***	7.847***	4.341***
	(0.546)	(0.389)	(1.269)	(0.533)	(1.469)	(0.747)	(2.029)	(0.743)
Number of instruments	33	39	23	31	33	39	23	31
Hansen test of overid. restrictions (Prob > chi2)	0.417	0.268	0.321	0.371	0.238	0.433	0.142	0.154
Arellano-Bond test for AR(2)(Pr > z)	0.153	0.183	0.202	0.370	0.482	0.467	0.566	0.273
Number of observations	191	191	191	148	205	205	205	190
Number of countries	43	43	43	33	40	40	40	37

Note: Standard errors in parentheses. Column (1): All the variables specified in the model are included in the gmmstyle option. Instruments used are from the first to the eighth lags of the respective variables; Column (2): Additionally, time dummies appear in the ivstyle option; Column (3) An alternative model specification choice is used such as reducing the instruments to the fourth lags of the respective variables; Column (4): Resource rich countries are omitted from the analysis, the specification choice from Model 2 is applied with instruments reduced to the sixth lags of the respective variables.
* p < .10. ** p < .05. *** p < .01.

Table 9 The Impact of Political Elites on Economic Growth for the Base Subsamples

VARIABLES	The base drift subsample			The base path-breaking subsample		
	(1)	(2)	(3)	(1)	(2)	(3)
Ln(Growth rate)$_{t-1}$	-0.069	0.052	0.189***	0.205	0.313***	0.284***
	(0.147)	(0.054)	(0.009)	(0.199)	(0.091)	(0.053)
Ln(Capital)	4.021	2.357**	2.336***	-1.518*	0.022	0.124
	(2.362)	(1.028)	(0.669)	(0.780)	(0.194)	(0.157)
Ln(Inflation)	-1.146**	-0.679***	-0.798***	-0.088	-0.227**	-0.296***
	(0.527)	(0.207)	(0.055)	(0.139)	(0.091)	(0.057)
Political elites	-27.220*	-1.470	-0.422	9.058**	3.765**	5.715***
	(15.560)	(3.543)	(2.225)	(3.893)	(1.529)	(0.991)
Number of instruments	9	15	19	9	15	19
Hansen test of overid. restrictions (Prob > chi2)	0.375	0.371	0.354	0.160	0.161	0.248
Arellano-Bond test for AR(2)(Pr > z)	0.348	0.141	0.210	0.616	0.736	0.532
Number of observations	100	100	100	116	116	116
Number of countries	22	22	22	21	21	21

Note: Standard errors in parentheses. Column (1): All the variables specified in the model are included in the gmmstyle option. Instruments are restricted to the second and third lags of the respective variables; Column (2): Additionally, time dummies appear in the ivstyle option; Column (3): An alternative model specification choice is used such as increasing instruments to the fourth lags of the respective variables.
* p < .10. ** p < .05. *** p < .01.

Table 10 The Impact of Political Elites on Economic Growth for the Extended Subsamples

VARIABLES	The extended drift subsample				The extended path-breaking subsample			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
Ln(Growth rate)$_{t-1}$	-0.263***	-0.065***	-0.079***	-0.007	-0.019	0.199***	0.025	0.217***
	(0.026)	(0.018)	(0.025)	(0.008)	(0.041)	(0.010)	(0.036)	(0.032)
Ln(Capital)	1.408***	2.194***	2.111***	2.391***	0.136	0.685***	0.973***	0.852***
	(0.393)	(0.095)	(0.166)	(0.051)	(0.099)	(0.070)	(0.117)	(0.044)
Ln(Inflation)	-0.346***	-0.356***	-0.409***	-0.416***	-0.111***	-0.146***	-0.250***	-0.208***
	(0.068)	(0.030)	(0.066)	(0.038)	(0.025)	(0.016)	(0.037)	(0.026)
Political elites	-6.330***	0.292	-0.895	1.157**	4.308***	3.427***	8.369***	5.439***
	(2.085)	(1.076)	(1.310)	(0.565)	(1.063)	(0.545)	(1.481)	(1.001)
Number of instruments	27	39	34	34	27	39	34	34
Hansen test of overid. restrictions (Prob > chi2)	0.732	0.360	0.290	0.400	0.186	0.333	0.359	0.396
Arellano-Bond test for AR(2)(Pr > z)	0.249	0.362	0.402	0.623	0.402	0.556	0.755	0.756
Number of observations	194	194	194	151	205	205	205	190
Number of countries	44	44	44	34	40	40	40	37

Note: Standard errors in parentheses. Column (1): All the variables specified in the model are included in the gmmstyle option. Instruments used are from the first to the fifth lags of the respective variables; Column (2): An alternative model specification choice is applied such as allowing instruments to vary from the third to the tenth lags of the respective variables; Column (3): An alternative model specification choice is used such as restricting instruments to the fourth lags of the respective variables and omitting the collapse suboption; Column (4): Resource rich countries are omitted from the analysis.
* p < .10. ** p < .05. *** p < .01.

Table 11 The Impact of Interactions between the Political Dimension and the Distance Variables on Economic Growth for the Path-Breaking Subsamples

VARIABLES	The base path-breaking subsample				The extended path-breaking subsample	
	(1)	(2)	(3)	(4)	(5)	(6)
$Ln(Growth\ rate)_{t-1}$	0.184*	0.529***	0.784	-0.005	-0.079***	0.261***
	(0.094)	(0.170)	(0.516)	(0.104)	(0.028)	(0.080)
Political institutions	-0.824		9.319**		-1.077	
	(1.886)		(3.904)		(1.912)	
Political elites		0.517		9.612***		-0.641
		(4.302)		(2.909)		(2.684)
Distance to the cultural dimension	-0.210	-1.807			-0.045	-1.212**
	(0.562)	(1.276)			(0.360)	(0.545)
Distance to the cultural dimension*	0.791				1.279*	
* Political institutions	(0.973)				(0.641)	
Distance to the cultural dimension*		4.222*				3.511**
* Political elites		(2.358)				(1.445)
Distance to the structural dimension			-1.123	-3.986		
			(7.939)	(3.564)		
Distance to the structural dimension*			3.036			
* Political institutions			(15.980)			
Distance to the structural dimension*				11.060		
* Political elites				(9.324)		
Number of instruments	17	12	12	17	27	22
Hansen test of overid. restrictions (Prob > chi2)	0.538	0.134	0.305	0.186	0.197	0.134
Arellano-Bond test for AR(2)(Pr > z)	0.151	0.490	0.413	0.396	0.163	0.958
Number of observations	105	105	105	105	158	158
Number of countries	21	21	21	21	32	32

Note: Standard errors in parentheses. The results for the control variables (lnCapital and lnInflation) are not reported due to space limits. Column (1): Instruments are restricted to the fifth and sixth lags of the respective variables; Column (2): Instruments are restricted to the second lags of the respective variables; Column (3): Instruments are restricted to the tenth lags of the respective variables; Column (4): Instruments are restricted to the fifth and sixth lags of the respective variables; Column (5): Instruments used are from the first to the fourth lags of the respective variables; Column (6): Instruments are restricted to the eighth, ninth and tenth lags of the respective variables. * p < .10. ** p < .05. *** p < .01.

Table 12 The Impact of the Political Dimension on Legal Institutional Change, by Mode of Institutional Grafting

VARIABLES	The drift subsample				The path-breaking subsample			
	Base		Extended		Base		Extended	
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
Legal institutions$_{t-1}$	-1.331***	-0.253**	-0.880***	-0.588***	-1.561***	-1.397***	-1.943***	-1.869***
	(0.029)	(0.099)	(0.028)	(0.092)	(0.061)	(0.116)	(0.039)	(0.109)
Life expectancy	-0.013***	-0.005***	0.016***	0.002	0.008	0.006	0.025***	0.001
	(0.002)	(0.001)	(0.001)	(0.004)	(0.010)	(0.010)	(0.003)	(0.009)
Political institutions	0.509***		0.467***		-0.765**		0.271**	
	(0.120)		(0.031)		(0.337)		(0.132)	
Political elites		0.127		-0.168		1.792***		1.807***
		(0.131)		(0.331)		(0.591)		(0.403)
Number of instruments	18	14	38	22	18	14	38	22
Hansen test of overid. restrictions (Prob > chi2)	0.218	0.153	0.216	0.185	0.459	0.331	0.404	0.123
Arellano-Bond test for AR(2)(Pr > z)	0.484	0.635	0.267	0.234	0.123	0.210	0.122	0.165
Number of observations	132	132	256	256	102	102	219	219
Number of countries	22	22	43	43	20	20	41	41

Note: Standard errors in parentheses. All the variables specified in the model are included in the gmmstyle option. Time dummies appear in the ivstyle option. Since formal institutions may influence the quality of life and impact life expectancy, we consider this variable endogenous and insert it into the *gmmstyle* option to instrument it with the lagged values of the variable itself. The latitude variable is considered strictly exogenous and is included in the *ivstyle* option. Columns (1): Instruments are restricted to the first, second and third lags of the respective variables; Columns (2): Instruments are restricted to the second and third lags of the respective variables; Columns (3): Instruments used are from the third to the tenth lags of the respective variables; Columns (4): Instruments used are from the second to the fifth lags of the respective variables.

* p < .10. ** p < .05. *** p < .01.

Table 13 The Impact of the Distance Variables on Legal Institutional Grafting for the Path-Breaking Subsamples

VARIABLES	The base path-breaking subsample				The extended path-breaking subsample	
	(1)	(2)	(3)	(4)	(5)	(6)
Legal institutional change $_{t-1}$	-0.295***	-0.304***	-0.254***	-0.213***	-0.304***	-0.279***
	(0.006)	(0.026)	(0.011)	(0.021)	(0.018)	(0.012)
Life expectancy	-0.074***	-0.037***	0.009	0.042**	-0.024***	-0.013***
	(0.013)	(0.013)	(0.012)	(0.014)	(0.005)	(0.003)
Political institutions	-2.539***		-0.656		-2.576***	
	(0.622)		(0.726)		(0.321)	
Political elites		-5.444***		-1.844***		-2.998***
		(0.464)		(0.588)		(0.349)
Distance to the cultural dimension	-0.098	-0.557***			-0.055	-0.073
	(0.141)	(0.180)			(0.101)	(0.065)
Distance to the cultural dimension*	0.618**				0.445***	
*Political institutions	(0.229)				(0.151)	
Distance to the cultural dimension*		1.626***				0.618***
*Political elites		(0.226)				(0.128)
Distance to the structural dimension			-1.716**	-2.038**		
			(0.703)	(0.755)		
Distance to the structural dimension*			4.646***			
*Political institutions			(1.348)			
Distance to the structural dimension*				7.362***		
*Political elites				(1.927)		
Number of instruments	19	19	19	19	27	27
Hansen test of overid. restrictions (Prob > chi2)	0.228	0.272	0.274	0.304	0.299	0.269
Arellano-Bond test for AR(2)(Pr > z)	0.626	0.760	0.913	0.300	0.168	0.560
Number of observations	96	96	96	96	162	162
Number of countries	20	20	20	20	31	31

Note: Standard errors in parentheses. All the variables specified in the model are included in the gmmstyle option. Time dummies appear in the ivstyle option. We restrict instruments to the first, second and third lags of the respective variables for the base path-breaking subsample. In the case of the extended path-breaking subsample, instruments used are from the fifth to the ninth lags of the respective variables.
* p < .10. ** p < .05. *** p < .01.

Appendix 1

List of Countries Used in the Analysis

Drift-phase subsamples		Path-breaking subsamples	
Base	Extended	Base	Extended
Australia	Australia	Albania	Albania
Austria	Austria	Armenia	Argentina
Belgium	Bahrain	Azerbaijan	Armenia
China	Belgium	Bulgaria	Azerbaijan
Colombia	Botswana	Croatia	Bangladesh
Costa Rica	Cameroon	Czech Republic	Benin
Denmark	Canada	Estonia	Bolivia
Finland	China	Georgia	Brazil
Germany	Colombia	Hungary	Bulgaria
India	Costa Rica	Kyrgyzstan	Croatia
Ireland	Denmark	Latvia	Czech Republic
Israel	Egypt	Lithuania	El Salvador
Italy	Equatorial Guinea	Macedonia	Estonia
Jamaica	Finland	Moldova	Georgia
Japan	France	Poland	Guatemala
Netherlands, the	Germany	Romania	Guyana
New Zealand	Greece	Russia	Hungary
Norway	Guinea	Serbia	Indonesia
Sweden	India	Slovakia	Korea South
Switzerland	Ireland	Slovenia	Kyrgyzstan
United Kingdom, the	Israel	Ukraine	Latvia
United States, the	Italy		Lesotho
	Jamaica		Lithuania
	Japan		Macedonia
	Luxembourg		Madagascar
	Mauritius		Malawi
	Mexico		Mali
	Morocco		Moldova
	Netherlands, the		Mongolia
	New Zealand		Mozambique
	Norway		Panama
	Oman		Paraguay
	Portugal		Philippines
	Rwanda		Poland
	Saudi Arabia		Romania
	Singapore		Russia
	Sri Lanka		Serbia
	Sweden		Slovakia
	Switzerland		Slovenia
	Syria		Ukraine
	Trinidad		Uruguay
	Tunisia		Zambia
	United Kingdom, the		
	United States, the		
	Vietnam		