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Political Ideology and Economic Freedom

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Abstract:

This paper examines the association between political ideology and the size of government and quality of the legal system and regulations. A cross-country indicator of government and citizen ideology is presented. Empirical results suggest that ideologically leftwing governments increase the size of government while the long-term ideological convictions of citizens affect the size of government and the quality of the legal system and regulations. These effects depend on the degree of political competition while ideology also affects countries' institutional response to economic crisis.

JEL Codes: P16, Z13

Keywords: Political Economy, Institutional Quality, Ideology, Social Norms

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I. Introduction

Broadly defined as the rules of the game, the notion of institutions in economics and politology captures the idea that the game of economics or politics is the same all over the world but neither the rules nor the enforcement of those rules are necessarily identical (North, 1991). Starting in the mid-80's a substantial literature has demonstrated how both formal and informal institutions affect outcomes such as economic growth (Kormendi and Meguire, 1985; Knack and Keefer, 1995; Kaufmann and Kraay, 2002; Zak and Knack, 2001; Beugelsdijk et al., 2004), aggregate productivity (Hall and Jones, 1999; Méon and Weill, 2005), corruption (Treisman, 2000; Uslaner, 2002), and subjective life satisfaction (Frey and Stutzer, 2000; Bjørnskov, 2003; Helliwell, 2003) as well as securing the gains from trade (Anderson and Marcouiller, 2002; de Groot et al., 2004). An important question is therefore what causes the considerable cross-country variation in the quality of institutions and governance, a question that has also generated substantial results by showing how cultural features and economic development affects institutional development (la Porta et al., 1997; Rice and Sumberg, 1997; Paldam, 2001; Knack, 2002; Knack and Zak, 2002).

A subset of the potential determinants contains various political factors that affect institutional quality. However, with very few exceptions all studies on this subset have been confined to comparing outcomes across states in federal nations. As such, most studies have explored the variation between US states and although the arguments for the absence of political effects are good, many studies find consequences of political ideology. Berry et al. (1998) review part of this literature and replicate two results from previous papers on cross-state US data of interest to the present study, showing that welfare spending and tax progressivity are influenced by the political ideology of the state government in power. Cross-country studies have instead focused on the differences between so-called social democrat, Christian democrat and liberal systems and found that the former intervene more in the economy (e.g. Huber and Stephens, 2000). The few cross-country studies to date to examine the effects of political ideology *per se* indicates that countries with a propensity to elect rightwing governments grow faster by creating stronger legal systems and having less government involvement in the economy (Bjørnskov, 2005). While this paper thus replicates the well-known result

from studies on US states that leftwing governments intervene more in the economy, as well as revisiting Nordhaus' (1975) and Hibbs' (1977) finding that ideology is associated with economic performance, it also provides tentative evidence that the quality of countries' legal systems may be affected by political ideology. The present paper raises another question by recognizing the problem of interpreting the findings as effects of either citizens' or governments' political convictions.

This paper elaborates on the connection between ideology and institutional quality by considering a set of cross-country indicators of economic freedom and addressing the potential problem of interpretation largely evaded by the literature. More specifically, the paper provides three main contributions. The impact of ideology on the size of government, legal quality, and regulation are addressed in turn, thereby drawing a more detailed picture of the association between political ideology and institutional quality. The paper also distinguishes between short-run fluctuations in the ideology of governments and long-term ideological convictions of citizens that more likely reveal a set of underlying social norms and beliefs of how society works. Finally, the paper outlines how the degree of political competition affects results and how different ideologies affect countries' response to economic crisis.

The paper is organized as follows. Section II reviews definitions and previous literature, leading up to section III that presents the cross-country measure of political ideology. Section IV presents the data and the empirical strategy employed in section V, which contains the empirical findings on each of the three components of economic freedom. Section VI discusses these findings and concludes.

II. Definitions and previous literature

Ideology is central to many topics in political science and the literature devoted to the subject is correspondingly voluminous. The concept of ideology is, however, hotly disputed and has proved to be difficult to define and consequently difficult to measure. This paper deals exclusively with *political* ideology – and all references to ideology are hence to the political component of it - yet even when making this restriction political science and economics contain a plethora of mutually conflicting definitions and views on what it is. Various studies have treated it as culture, positions defined by class interests, purely linguistic discourse, belief-systems and overall *weltanschauung* (e.g.

McClosky, 1964). Mullins (1972, 510) provides a relatively early yet thorough discussion of the concept, ultimately concluding with a definition of ideology in political science as “a logically coherent system of symbols which, within a more or less sophisticated conception of history, links the cognitive and evaluative perception of one’s social condition – especially its prospects for the future – to a program of collective action for the maintenance, alteration or transformation of society”. He thus emphasizes the necessary action-orientation of political ideology, i.e. that it does not cause “one to do but gives one cause for doing” (Mullins, 1972, 509). More recently, Gerring (1997) reviews the vast literature on political ideology and its definition – a disconcerting piece of reading as it shows how little progress has been made towards a definitional consensus in the 25 years between this and Mullins’ contribution. He concludes by stressing the need for internal coherence in any core definition of ideology and thereby tries to differentiate ideology from e.g. culture or belief-systems by arguing that a set of values “becomes ideological only insofar as it specifies a concrete program, a set of issue-positions” (Gerring, 1997, 975). Hence, if a person has a specific position on one issue, he is likely to have specific predictable positions on other issues, depending on his political ideology.

Requiring any measurable understanding of ideology to be coherent in Mullin’s sense that ideological positions and the policy prescriptions deriving thereof cannot contradict each other – i.e. that quantifiable ideological positions must correlate across issues - thus amounts to connecting political ideology to preferences for political action. Another implication is that the necessity for coherence invariably restricts the dimensionality of the concept. What is more, even if voters’ ideologies are multidimensional, their voting patterns are reduced to the dimensions of the ideological space spanned by the limited number of parties running for parliament, given that the term ‘political party’ makes sense by parties holding their candidates accountable within a broad party ideology. Political ideology is a potentially complex feature yet operationalizing it as a unidimensional construct measurable in a left-to-right scheme hence need not necessarily entail any sizeable loss of information or sophistication when connected to real political outcomes. An important assumption in the following is therefore that a reduction of political ideology to a simple left-to-right scheme makes sense, as it is crucial to the validity of the indicator developed below. Although

ideology in general is undoubtedly multidimensional, Poole and Rosenthal's (2001) large-scale work has documented that very little information is indeed lost when restricting political ideology to be one-dimensional, thereby providing substantial empirical support for the assumption (see also Rubin, 2001).

Whether differences in political ideology would have any effects is an entirely different question to which a whole literature is devoted. Two factors speak against that the ideology of government has any real consequences through partisan politics. Firstly, Downs (1957) famously argued that rational voters cast their vote according to purely ideological signals since collecting information on the detailed intentions and planned policies of political parties is prohibitively costly. In most understandings of Downs' theory of political competition parties therefore compete for the vote of the median voter by adjusting policies to his position. As this view suggests policy convergence towards the median position, it implies that political ideology does not matter because all parties pursue essentially identical policies. Even in sophisticated versions such as Roemer's (1994) model where voters are uncertain about the economy and political parties therefore communicate ideological representations of it, a standard median voter result holds. Downsian political competition therefore leaves little or no room for any effects of partisan politics.

However, cross-country differences in the ideological conviction of the median voter might potentially exert an influence. A complicating factor in this respect might be the parliamentary strength of the government. Even if partisan politics might have a potential effect, i.e. that governments would pursue partisan policies if they had the chance, their ability to carry such policies into effect depends on the degree of support for the policy in parliament. On the other hand, when governments' ability to pursue partisan politics is curbed, the chances of a median voter outcome might be substantially higher. Along this line of thinking, strong governments might therefore be better able to pursue partisan ideological policies but reduce the probability of a median-voter consistent outcome.

Secondly, Cukierman and Tomassi (1998) suggest that necessary political initiatives are often brought to being by the ideological side that is less likely to root for them. Making the point that this side is in a better position to signal credibility of the initiative as an objectively 'good' or necessary policy, they answer the question why it

might “take a Nixon to go to China”. This would indicate that e.g. legal development, which is arguably a traditional rightwing core issue, might be faster when leftwing governments are in power if it is unpopular to reform the system or it would draw resources from more popular activities. Similar arguments apply with respect to other aspects of institutional development such as economic regulation and the size of government.

These rather good arguments are nevertheless belied by Nordhaus’ (1975) and Hibbs’ (1977) classical studies of political business cycles, showing that unemployment and inflation is affected by the political ideology of incumbent governments. Reviewing the literature, Besley and Case (2003) also criticize the Downs-type assumptions about both politicians’ restricted motivation – winning votes - and their limited ability to credibly commit to advertised policies – the policies that won them the vote. The latter assumption in particular is crucial to most Downsian results. Yet, when e.g. parties have no reliable information about the effect of policy decisions on voting, Budge (1994) shows that not only do parties take an ideological position on policy instead of converging towards a Downsian median position, but this position is taken once and for all, i.e. parties will remain devoted to their professed ideology even for decades. He goes on to show that the model works well in explaining actual decisions made by parties in a sample of democratic countries, demonstrating that political decisions are often ideological. More recently, Lee Moretti and Butler (2004, 848) in an empirical study of US state elections decided by a narrow margin conclude that contrary to much theory, “voters do not *affect* policies [...] but rather primarily *elect* policies” by electing politicians of specific ideological convictions who are likely to pursue these policies. In a survey chapter in a recent companion to public choice, Rubin (2001, 329) comes to the similar conclusion by noting that “a substantial body of empirical analysis of congressional voting [...] has shown that ideological factors have considerable power in explaining congressional voting”.

A related question is whether governments and countries of different political ideologies react differently to economic crisis. A number of economists and political scientists have argued that crisis can actually be beneficial for economic reforms by creating a situation in which the welfare losses to all parties involved are large enough to preclude political free-riding (e.g. Drazen and Grilli, 2003). The type of reform to be

initiated is nonetheless likely to depend on political ideology. Rightwing countries might arguably react to crisis by strengthening legal and regulatory quality and reducing government expenditure while leftwing countries should a priori be more prone to expanding government involvement in the economy and weakening regulations by e.g. imposing price controls and similar measures to protect workers. From a Downsian point of view, the median voter ideology determines the response to a crisis as this is the position that political parties will converge towards when forced to cooperate. Interpreted as an outcome of partisan politics, crisis responses are more difficult to predict as parties precisely need to find a common ground, although a case can be made that opposition parties might rationally support a partisan response of the incumbent government to lend it credibility and thus yield optimal impact although it would not be their preferred choice of response.

A number of examples of responses to crisis can be derived from Zimmerman and Saalfeld (1988) who outline the reactions to the Great Depression of the 1930s in six European countries. The reactions in France, which had leftwing and centre-left coalition governments throughout the 1930s, and the United Kingdom, which was dominated by the Conservatives in much of the interwar period and has a strong liberalist economic tradition, can serve to exemplify the ideological reactions to similar economic crises. France responded to the depression by introducing collective bargaining, paid holidays, nationalizing companies and bringing the Banque de France firmly under government control through the Matignon agreement of 1936 while the centre-left government that remained in power until 1934 only made “fairly moderate” cuts in government expenditures compared to other continental European countries (Zimmerman and Saalfeld, 1988, 312). On the other hand, the United Kingdom reduced government expenditure as part of GDP from 17.3% to 14.6% between 1931 and 1934 even when GDP decreased, and focussed on reducing taxes after 1934. Contrary to most other European countries, it never initiated an employment program but attempted to stimulate the economy through indirect market-based measures. The institutional responses in Denmark and Sweden fell somewhere in between the reactions in France and the United Kingdom. Denmark, which until the depression had been an economically liberalist country, broke radically with past policies and introduced price controls, extensive government regulation and publicly provided unemployment

benefits under the Social Democrat governments in the 1930s (Hansen, 1984). Sweden underwent a similar development in the early 1930s, which also included the introduction of collective bargaining rights. In both countries, the response nevertheless also included guaranteeing the industry widespread freedom from state intervention as well as reforms of the central banks that increased their independence. The response of the Scandinavian countries can thus best be characterized as ideologically mixed and at first glance, the reactions to the depression may therefore be potentially be understood as consistent with the predominant political ideology in European countries.

More recent examples from the quarter of a century between 1975 and 2000 can provide additional support for this notion. Argentina, which has had rightwing governments for most of the period considered here, for example reacted to its crisis in the late 1980s by strengthening the legal system quite considerably, reducing government consumption from 13% to 11% of total consumption, and reducing the top marginal income tax from 62% to 35%.¹ New Zealand, another rightwing country, reacted to its crisis in the late 1970s by strengthening the legal system by almost three points on a ten-point scale. At the other half of the ideology spectrum, leftist governments in Venezuela reacted to the debt crisis in the early 1980s by reducing legal quality by about one point to give governments more leeway for widespread intervention, and the similarly leftwing Jamaica that experienced economic difficulties throughout the 1990s failed to reform its regulations of business and labour and even introduced interest rate regulations at a time when governments in the rest of the world on average substantially deregulated their economies (see Gwartney and Lawson, 2002). Again, these examples of crisis responses can readily be understood as traditional ideological reactions.

In sum, despite that the influence of Downs' theory of political competition can hardly be exaggerated, there are hence strong indications that partisan politics may be a feature of the real world. On the other hand, it does not preclude any effect of Downsian median positions; judging from the examples above, the effects of median ideology may in particular work in association with economic crisis. The main questions here are whether political ideology also affects policy outcomes across countries and not just in the US and whether the examples above are representative of

¹ These data derive from Gwartney and Lawson (2002), which is also the source of the institutional indicators to be used in the following.

ideological responses to crisis. For this purpose, a cross-country indicator of ideology is needed. This indicator also opens the possibility of considering culturally determined ideological positions of the median voter, as will be discussed in the following.

III. A cross-country indicator of political ideology

Compared to the measures used in the many studies on US states, the present indicator of political ideology is by necessity less sophisticated. A variant of the measure used in the following was introduced in Bjørnskov (2005) drawing on the work of Beck et al. (2001) who categorized parties in a large number of countries according to whether they are leftwing, center parties or rightwing. The measure adopted in the following builds on this work by placing parties on a discrete left-to-right scale where leftwing parties are assigned the value -1, center parties 0 and rightwing parties 1. The value of government ideology g_t in any period beginning in year t between 1976 and 2000, the years covered by Beck et al. (2001), is the weighted sum of the ideology i_{jk} of the three largest parties in government at time k . The weight s_{jk} is the share of party j of the total seats in parliament held by the government at time k and thus reflects the influence on government by any ideological category represented. As such, I implicitly assume that the real influence on government policy of any party is proportional to the share of seats held by that party.² The ideology is thereafter averaged over each 5-year period ($x=5$) to yield the final measure in (1).

$$g_t = \sum_{k=t}^{t+x-1} \frac{\sum_{j=1}^3 s_{jk} i_{jk}}{\sum_{j=1}^3 s_{jk}} \quad (1)$$

Averaging across years allows capturing the effects of ideology in different countries across the same period regardless of whether or not government power shifted within the period. By dividing parties into only three categories, the ideology measure necessarily becomes rather crude and imprecise. This imprecision can nevertheless be interpreted as a feature of the real world, as parties can hardly be placed accurately in a

² The weighting scheme is the important difference to the indicator utilized in Bjørnskov (2005), which only captured the ideology of the largest government party. It can therefore be argued that the present indicator is more precise.

left-to-right scheme. Instead, the ideology of parties can be placed only within a vicinity of some exact ideal position. Although a scale with more steps would be preferable, the crudeness of g_t may to some extent reflect this indistinctness of real-world politics. It should be remembered that higher values of g imply more rightwing political positions.

In the following, I also use the average ideology in the entire period 1976-2000 ($x=25$), which thus becomes a measure of median *citizen* rather than *government* ideology – i.e. the political ideology of the median voter, given an assumption that the former is relatively stable across time. While any interpretation of the former indicator must logically take the possibility of partisan politics discussed above as a starting point, it is necessary to turn to both intuitive political arguments and results from experimental economics and the so-called happiness literature in order to interpret the potential effects of the latter indicator. Simple informal political arguments suggest that ideology can be used as a proxy for e.g. tolerance of income inequality (Alesina and Angeletos, 2005). For example, Marxists would find inequality strongly unfair and detrimental to society since it in their *weltanschauung* or mental model would be a signal that someone (the ‘bourgeoisie’) exploits the population at large. Individuals with a purely Hayekian mental model of society, on the other hand, would probably see inequality as natural and fair since it reflects differences in ability, skills and work effort; income inequality would even be desirable due to its efficiency effects. These ideological differences could well be expected to become visible in redistributive policies and the extent of government production and marginal taxation.

Supplementing these reflections, experimental studies show that individuals’ merit assumptions and equity-efficiency trade-offs are significantly associated with political ideology and influence their behavior in economic experiments (Mitchell et al., 1993; Scott et al., 2001; Michelbach et al., 2003). Hence, it appears that people on the political right wing tend to be more tolerant of inequality and behave accordingly, as they ascribe inequality to merit and efficiency to a larger degree than their political opponents. On the other hand, voters on the left wing seem to have stronger need considerations, which could potentially lead to stronger support for redistribution and extensive social security nets and therefore support for a larger government sector. The experimental studies hence also support the use of political ideology as a proxy for a set of social norms associated with work and inequality. Such norms and mental models are

most likely substantially more diverse across than within cultures. Denzau and North (1994, 15) for example make the point that “the cultural heritage provides a means of reducing the divergence in the mental models that people in a society have and also constitutes a means for the intergenerational transfer of unifying perceptions”. Not only are mental models or *weltanschauung* a cultural feature, given the intergenerational transfer it is also likely to be relatively stable across time.

An altogether different strategy to the essentially same question is provided by Di Tella and MacCulloch (2005) who show that political ideology is associated with how different events affect individuals’ subjective life satisfaction. Quite irrationally, individuals of a specific political conviction appear to be substantially happier when ‘their’ type of government is in power irrespective of the policies pursued by the government. Of more importance to the present topic, the paper finds that individuals’ unemployment/inflation trade-offs vary with their political ideology. Individuals’ subjective life satisfaction is hurt more by unemployment when they vote on the left wing while they are more averse to inflation when voting on the right wing. Not surprisingly, the life satisfaction of voters on the left wing varies positively with government consumption while it does not exert a significant influence on rightwing voters. The study consequently demonstrates that political ideology is closely associated with voters’ preferences for policy outcomes.

Di Tella and MacCulloch (2005) as well as the experimental studies noted above accordingly provide ample support for the view that individuals either have different mental models of the economy or at least weigh outcomes differently and that these preferences vary systematically with their political conviction. In other words, the findings and the simple political argument connect political ideology to preferences and mental models of the economy arising from differences in individuals’ *weltanschauung*. With respect to the dependent variables in the following, it should therefore be expected that leftwing preferences for government involvement show up in the results below if partisan politics exist. Rightwing preferences for protection of property rights and legal quality might also appear due to a desire to protect merit and the gains from talent and effort as the simple theoretical digression in Bjørnskov (2005) suggests. Finally, the quality of regulation could likewise be influenced by ideology as it includes the degree of individual wage formation, price controls and overall reliance on market

mechanisms. Whether these effects work through partisan politics or if citizens' ideology affect all governments alike is an empirical question. The main question is therefore whether the two indicators of political ideology affect the size of government, the quality of the legal system, and the quality of regulations of business, credit and labor.

IV. Data and estimation strategy

The data on the dependent variables derive from the Canadian Fraser Institute that publishes the so-called economic freedom indices (Gwartney and Lawson, 2002). These indices are distributed from 0 (no quality) to 10 (perfect quality) by drawing on data from various primary sources; the indices are published once every five years for a large set of countries. As these variables are bounded on the interval $[0;10]$, the dependent variables in the following are the economic freedom indices rescaled by dividing any original score x with $10-x$ such that they are distributed across R_+ .

I use only three of the five available indices composed of the following elements, as these three are often found to have real economic effects. The 'Size of government: expenditure, taxes and enterprises' index is intended to capture "the extent to which countries rely on individual choice and markets rather than the political process to allocate resources and goods and services" (Gwartney and Lawson, 2002, 6). It is composed of government consumption as a percentage of total consumption, transfers and subsidies as percentage of GDP, government enterprises and investment as a percentage of total investment, and the extent of marginal taxation. It must be remembered in the following that the index is constructed such that higher values imply less government involvement in the economy. 'Legal structure and security of property rights' is composed of indices capturing judicial independence, the impartiality of courts, the protection of intellectual property, military interference in the rule of law, and the integrity of the legal system. The final indicator to be used here, 'Regulation of credit, labor, and business', is composed of a set of indices on each of the three areas of regulation including among others measures of ownership of foreign banks and interest controls, the share of workers with wages set through centralized bargaining, the generosity of unemployment benefits and minimum wages, and price controls and administrative obstacles to starting new businesses.

The size of government indicator is thus composed of objective measures although the measures going into the index can be discussed. Conversely, there is an inevitable element of subjectivity in the indicators of the quality of the legal system and regulation, which might yield results less reliable. Moreover, some scholars of law flatly reject the idea that notions of such complex features can be reduced to simple numerical measures. Siems (2004) consequently discusses the arguments for and against such measures and the merits and problems of different approaches. He eventually concludes that in order to support general claims, it is necessary to complement traditional detailed legal case studies with more broadly focused studies as is the tradition in economics, which makes the use of simple numerical measures necessary. Although it is undoubtedly problematic to develop good measures for such complex conceptions as legal systems or the quality of regulation, the Fraser indices employed in the following have been widely used and are usually assessed to be good indicators of institutional development.³ Moreover, the indices more clearly delineate different aspects of economic freedom and institutional development than alternatives such as the much-used governance indices utilized in Kaufman and Kraay (2002).

The choice of control variables is informed by previous studies; the sources of all variables are listed in Appendix Table A1. Most studies on institutional quality find that income is important – as noted in the introduction, the maintenance and administration of proper legal and regulatory systems is expensive. Furthermore, voters in relatively rich countries may tend to demand and be willing to pay for the provision of more public goods. I therefore include GDP per capita in the baseline specification used in all analyses. The baseline also includes the logarithm to population size, as there could be economies of scale in providing institutional services (Knack, 2002). As a response to recent influential critiques of the growth literature, claiming that openness and economic integration affects growth primarily by creating incentives for institutional development, I include openness to trade adjusted for the logarithm to

³ Besides the description in Gwartney and Lawson (2002), de Haan and Sturm (2000) and Paldam (2003) discuss the properties and validity of the economic freedom indices. Although de Haan and Sturm (2000) criticize the government size index, and in particular the way the tax burden is included, both conclude that the indices are fairly decent measures of economic freedom and institutional quality. However, in the present context another critique might be that government consumption includes consumption at all levels of government. To the extent that local governments are free to decide on expenditures, ideological effects across counties or municipalities will only show in the estimates presented here to the extent that voting patterns at the local level follows patterns at the national level.

population size in the baseline (e.g. Rodrik, 1998; Rodrik et al., 2000). This also controls for Rodrik's (1998) compensation hypothesis of globalization, which assumes that government consumption plays a risk-reducing role in countries particularly exposed to international fluctuations through trade.

I also include the percentage of a population that is older than 64 and therefore past the normal working age, which provides a measure of the age burden that inevitably increases government involvement whenever a public pension system exists. With respect to regulations, it could be expected that if a significant part of the electorate is outside the labor market there is less demand for quality regulations of such aspects of the economy while age structure could potentially affect legal quality through two channels. Individual support for investment in legal quality must logically rest on an insurance argument, as better legal quality protects them against adverse future events. Hence, older voters with a shorter time horizon might demand relatively smaller expenditures on the legal system, all other things being equal. The other channel arises as a heavy age burden places demands on government spending for health care and pensions, thereby potentially shifting spending away from for example the legal system.

In all cases I include dummies for different legal systems; this is done by including dummies capturing the legal origin of a country, i.e. whether a country has a common or civil law system; the baseline comparison is thus the mixed German and Scandinavian systems. With respect to legal quality, Glaeser and Shleifer (2002) argue that countries with common law have better performing legal systems. However, a dummy for common law also captures the effects of having been under British colonial rule and thus the effects of British institutional transplants that might not be limited to the legal system. Following recent studies I also include a measure of ethnic diversity in the regressions in the following to take into account any special political effects of having a polarized society (Keefer and Knack, 2002; Alesina et al., 2003; Annett, 2003).

Finally, I take two complicating factors into considerations: 1) the parliamentary strength of the government, which is a measure of (lack of) political competition; and 2) the potential effects of economic crisis. To capture the first possibility, I enter an indicator of political competition, measured as the 25-year average of the ratio between seats in parliament held by government parties to seats in parliament held by opposition parties. This variable, while capturing the tradition for

political competition, can probably best be interpreted as a measure of the risk of losing power based on historical observations. Alternatively, I use the five-year average political competition, denoted ‘political competition, current’. I interact these variables with the two ideology indicators to test whether the potential effects of ideology depend on the political bargaining power of the incumbent government.⁴ To test for the potential effects of having an economic crisis, I include a variable intended to capture the occurrence of economic crises. The variable is a dummy that takes the value one if one of two criteria is satisfied: 1) economic growth is negative in the five-year period in question; or 2) the growth rate is less than half of that of the preceding period, unless the preceding period was characterized by particularly high growth.⁵ These criteria do not capture all crises, but it can be argued that periods in which one of these criteria are satisfied must include some form of economic crisis. All regressions also include period dummies and dummies for Asia and the Pacific region, Latin America and the Caribbean, the Middle East and North Africa, Sub-Saharan Africa and the post-communist countries.

For two reasons, I restrict the sample by the condition that countries are fully democratic, defined as having an average score in any five-year period of three or less on the Gastil index (Freedom House, 2003). Firstly, a 25-year average makes no sense as an indicator of citizen ideology and the associated social norms and mental models and secondly, the median voter theorem and all interpretations resting on the theorem would be invalid if voters have not been politically free to express their true preferences. Given this restriction, the sample of democratic countries with full data employed in the following is limited to including 58 countries, 26 of which are developed, 5 post-communist, and 27 developing countries. The panel is therefore unbalanced both in terms of geographical coverage and democratic legacy. Table 1 reports descriptive statistics on the variables; all countries included in the sample are listed in Appendix Table A2. As such, the average country is about the level of

⁴ I also tested extensively for effects of changes in government strength by including five-year averages of this variable. However, these tests produced no results what so ever and are therefore not reported in the following.

⁵ The average growth rate in this sample is 1.5% pa. High growth is defined as the double of that, i.e. 3% pa.

development of Hungary or Chile but with a longer democratic legacy than these countries.

INSERT TABLE 1 ABOUT HERE

When estimating the effects of political ideology in the present panel of countries, four problems present themselves: endogeneity, contemporaneous errors, serial correlation and heteroscedasticity. With respect to the first problem, there is only limited reason to believe that any effect is evidence of the reverse causation when estimating the effects of ideology on institutional indicators. For example, it is difficult (although maybe not impossible) to argue for an improvement in general legal quality resulting in the electorate voting for a government of a specific political ideology. On the other hand, the size of government could for example affect the support for rightwing countries if the electorate in general finds it to be excessive. This would nonetheless tend to generate a negative correlation between the government size index and political ideology, i.e. the ‘wrong’ sign. In other words, such potential endogeneity tends to bias the estimate on ideology towards zero. All coefficients with the expected sign should therefore logically be interpreted as support for the general hypothesis of this paper. The possibility also exists that economic freedom and political ideology are jointly determined by some underlying factor. In the present case, this does not constitute a problem as such an underlying factor would most likely be a set of social norms determining the median voter ideology, i.e. a latent factor that measures one of the potential explanatory factors.

The second problem listed above is not likely to be a major concern here either. Contemporaneous errors from joint regional shocks are picked up by the regional dummies and at a more disaggregated level any institutional spill-overs resulting from e.g. demonstration effects or learning are more likely to work in a longer run than the five-year intervals applied here. To overcome the last problems, the choice of estimation procedure is random effects (RE), which is a preferable choice since it allows the simultaneous estimation of government and citizen ideology, i.e. both time-varying and time-invariant factors. As final tests, I report estimates obtained through either excluding potential outlier observations, thus testing whether these observations drive

results, and through country fixed effects (FE), which can inform about how to interpret the effects of ideology. As noted above, the effects could be due to either ideologically influenced government actions or be the results of the social norms and beliefs of the electorate. As the latter features are likely to change very slowly over time, removing the between variation removes most of the variation due to citizen ideology and leaves only the effects of ideological government action; i.e. of pure government ideology.⁶ If the effects of the government ideology measure survive FE estimation, they are consequently most likely to reflect ideological acts of government that influence the rate of institutional development. Another benefit of the FE estimates is that they take into account the effects of generalized trust and income inequality found in a number of papers (la Porta et al., 1997; Svensson, 1998; Keefer and Knack; 2002; Knack, 2002). These features are left out due to limited availability across countries (trust) and time (inequality).⁷

V. Empirical findings

Before employing the full models, it might be instructive to turn to simple differences in the raw data. As a first indication of any potential effects, it can be observed in Table 1 that countries with a government ideology below average score 0.65 lower on the size of government index than countries above average, a difference that is strongly significant. These countries also score significantly lower on regulation (0.25) while the differences in the raw data between countries on legal quality (0.16) or on the degree of democracy are small and insignificant. One could hence be tempted to reach the conclusion that government ideology affects the size of government and the quality of regulations in the expected direction. As these differences could nevertheless be entirely spurious, I report the results of regressing economic freedom on a set of control variables and the measures of government and citizen ideology. Each of the three indicators is treated in turn in the following.

⁶ Rice and Feldman (1997) for example note that certain aspects of social norms and values from the original home countries seem to have survived for generations in families that emigrated to the US generations ago. Uslaner (2004) reaches a similar conclusion by showing how Americans' propensity to trust strangers is to a surprising degree determined by the current trust level of the country of origin of their ancestors who arrived in the US generations ago.

⁷ That the exclusion of these variables is not a serious problem when estimating the effects of either government or citizen ideology is indicated by the very low correlations (0-0.14) between them and the ideology measures.

V.I. The size of government

Firstly, Table 2 reports the results of employing the size of government as the dependent variable. As can be seen in the bottom panel of the table, the specification does a good job explaining the variation and a random effects specification is warranted by the LM tests. The bulk of the explanatory power comes from the time-dependent intercepts and two control variables. Richer countries tend to have larger government sectors, reflected in a lower index (hence the negative sign), and ethnically diverse countries have smaller government sectors. The latter finding apparently contradicts the results in Annett (2003) while Alesina et al. (2003) find negative effects of ethnic diversity on other aspects of government involvement such as transfers and subsidies.⁸ Age structure, proxying for the age burden, surprisingly does not exert an influence on the size of government although it could affect the composition of its constituent parts. The effect of openness is also insignificant and hence contradicts Rodrik's (1998) finding that more open countries have larger government sectors.

INSERT TABLE 2 ABOUT HERE

Turning to the main question of the paper, only government ideology is significant in the first columns. However, when allowing for the effects of citizen ideology to vary with the 25-year average of political competition, this measure becomes strongly significant as does the interaction term. The results support the notion that the ideological convictions of the electorate matter for the size of government but more so when political competition is fierce. The effect of government ideology, on the other hand, arises no matter how strong the government is. Finally, the crisis variable and its interaction term do not reach significance although their inclusion causes the coefficient on citizen ideology to increase.⁹

⁸ When looking deeper into this issue, the effect, which is only borderline significant, surprisingly turns out to arise mainly due to a set of relatively rich and diverse countries. As such, when one excludes relatively poor democracies ethnic diversity becomes strongly significant.

⁹ This may nevertheless be a spurious effect as the inclusion of the crisis dummy and an interaction term only raises the Chi square marginally from 73.8 to 75.1 when using the same sample.

V.II. Legal quality

As the second theme, I address the potential effects of political ideology on the quality of the legal system and the security of property rights in Table 3. The baseline specification does a more than decent job of explaining the variation both between and within countries although the LM tests reject the need for random effects. The results firstly show that richer countries have substantially better legal systems. There is, however, no evidence to support that openness is associated with better legal quality, thus contradicting the conclusions by Rodrik et al. (2002). Neither do the legal origins or ethnic diversity matter, as suggested by previous research (Glaeser and Shleifer, 2002; Keefer and Knack, 2002). There is nevertheless a strong effect of age structure, suggesting that countries with aging populations all other things being equal have lower legal quality. As noted above, this effect could arise because such countries save on legal expenses to make up for higher expenses to pensions and health care, but could also arise as a voting effect since older voters have shorter time horizons and therefore weaker preferences for long-term investments.

INSERT TABLE 3 ABOUT HERE

Turning to the effects of ideology, the table clearly shows that government ideology does not exert any influence. The effects of citizen ideology are in the expected direction but also fail to be significant in the first three columns. When allowing for effects to vary both with political competition and the occurrence of economic crisis, the effects of citizen ideology nevertheless become well identified. Judging from the substantial increase in explanatory power between nations, the inclusion of differential effects with different degrees of political competition and during crisis is certainly justified.¹⁰ The estimates suggest once again that the effects of citizen ideology are more pronounced the more political competition there is, i.e. a more competitive political process is more responsive to the preferences of the median voter. On the other hand, a competitive political process also seems to lower the general legal quality, and it turns out that leftwing countries react to crisis by strengthening the legal system more than

¹⁰ When using the same samples, the inclusion of political competition and an interaction term raises the Chi square by 10.2 points and the inclusion of crisis effects raises it by 9.5 points. Both sets must therefore be considered jointly significant.

rightwing countries do. As the interaction variable is citizen ideology, not government ideology, the latter effect can logically not be consistent with Cukierman and Tomassi's (1998) conjecture that the wrong ideological side often is in a better position to go through with unpopular reforms during crises. A more reasonable interpretation could for example be that rightwing countries might be less apt to strengthen legal quality as they already have superior legal systems, all other things being equal. Economic crisis therefore more likely induces countries with leftwing median voters to converge towards more rightwing countries along this dimension of institutional development.

V.III. Regulation

The final dimension of economic freedom to be addressed is the quality of regulation of business, credit and labor; the results are reported in Table 4. Once again, the baseline variables do a good job explaining slightly more than a third of the variation in the data although the between variation is substantially better explained than the within-nation variation. The LM tests also support the choice of a random effects estimator. Looking at the control variables, GDP is only weakly significant in one specification while ethnic diversity is positive and significant in three of the four specifications. The most surprising result in the control variables, however, is that common law countries seem to have substantially better regulations than either countries with civil law or mixed systems. Contrary to the findings on legal quality, the effect suggests that the difference in regulatory quality is a consequence of the system *per se* and not the result of colonial origins, as the coefficient does not change if one excludes developing countries (not shown).

INSERT TABLE 4 ABOUT HERE

Turning to the main question, the table shows that only the effect citizen ideology on the quality of regulations is significant in all specifications; government ideology is never near significance and even changes sign. However, the coefficient on citizen ideology is strongly increased when allowing for the effect to vary with political competition and the occurrence of economic crisis. While these effects are never individually significant, their inclusion is warranted by the increase in explanatory

power between nations. As is the case for legal quality, countries with a leftwing political tradition seem to react to crisis by deregulating the economy while the effects of citizen ideology are stronger in politically more competitive environments.¹¹

V.IV. Robustness to outliers and fixed effects

As a final area of exploration, I turn to the robustness of these effects to the exclusion of potential outliers and the inclusion of country fixed effects, which can inform about how to interpret the effects of ideology. The results are reported in Table 5 that also reports the standard Hausman test between random and fixed effects specifications. Starting with the government size results, age structure becomes weakly significant in the RE column while GDP per capita and government ideology lose significance. On the other hand, citizen ideology becomes strongly significant as does the effects of political competition and the interaction term between ideology and competition. Conversely, the variables capturing crisis response do not approach significance. The more robust estimates in Table 5 hence support that the ideological convictions of the electorate affect the size of government in the expected direction – rightwing countries have smaller governments – but also that this effect is substantially stronger whenever the political process is more competitive. Conversely, the estimates suggest that countries with a more competitive political tradition have larger government sectors, perhaps due to a need to support a larger variety of political and economic preferences, which would generate higher government consumption. Column two in the table nonetheless also carries a different message, as the fixed effects estimate strongly supports that rightwing governments are associated with smaller government sectors. Although the Hausman test suggests the use of an RE specification, the FE estimate has the advantage of being free of multicollinearity problems between government and citizen ideology, which in Table 2 can have concealed the effect of the political convictions of governments. The FE estimates therefore provide additional evidence of an effect of partisan politics.

INSERT TABLE 5 ABOUT HERE

¹¹ With identical samples, the inclusion of political competition and an interaction term with citizen ideology raises the Chi square by 8.5 points but the inclusion of crisis effects only raises it by about 1.5 points. The first is therefore jointly significant while the second inclusion appears doubtful.

Turning to columns three and four that report on the robustness of effects on legal quality, these results neither appear to be driven by outlier observations. A rightwing citizen ideology contributes to legal quality although more in countries with a strong tradition of political competition while competition in itself seems to lower legal quality. The fixed effects estimates simply show that government ideology does not exert any influence and although the Hausman test suggests the use of the FE specification, it is only significant at $p < .10$, indicating that the differences between FE and RE might be limited. It is nevertheless worth noting that GDP per capita are very far from being significant in column four, suggesting that economic growth may not lead to better legal quality.

Finally, columns five and six report on the robustness of results pertaining to regulatory quality. Again, the FE specification is only slightly preferred to the RE specification, which conclusions therefore rest upon. First of all, the effect of citizen ideology is strongly significant when excluding outliers, thereby indicating that effects are not driven by these observations. The findings also show that the effect of median voter ideology is stronger in more competitive political processes, although this effect is not as pronounced as in the two other cases. On the other hand, the ideological response to economic crisis becomes significant at $p < .10$, indicating that leftwing countries may have been more prone to deregulating during crises. However, the same alternative interpretation exists as in the case of legal quality. As a final feature to note, economic development over time is associated with lower regulatory quality in the FE specification that also rejects that government ideology has any effects on this aspect of institutional development.

In summary, the results show that both government and citizen ideology matter although for different aspects of institutional development. Government ideology affects the size of government with rightwing governments intervening less in the economy while citizen ideology affects all three dimensions of economic freedom.¹²

¹² For future research employing the economic freedom data, an additional result is the absence of evidence of an ideological bias in the indices. Previous studies have confirmed the reliability of the data but have left the possibility that the predominantly rightwing conviction of the researchers who created the indices may have implied a bias in favor of rightwing governments. If this were the case, it should be expected that a shift towards a rightwing ideology would affect all of the five indices, all other things being equal. However, the results clearly show that this is the case only for the size of government, which

The literature on growth and institutions show that the long-run effects of such changes on economic activity are difficult to neglect. The findings are therefore discussed in the final section.

VI. Discussion and concluding remarks

Political ideology has always been and will in all likelihood remain a highly controversial and disputed issue. This paper has ventured into the debate by asking the question whether political ideology affects three indicators of economic freedom capturing the quality of national institutions and the size of government. Following a short theoretical discussion of how to measure ideology and distinguish between *government* and *citizen* ideology, the paper employed the categorizations by Beck et al. (2001) to form indicators of the former as average ideology over five-year periods and the latter as the long-term propensity of the population to vote to the right of the middle. Empirical analyses confirm that both have effects and that such distinction is important. The estimates moreover demonstrate that the effects of political ideology are of economic and political significance as well. The findings consequently provide a better understanding of previous cross-country results in e.g. Huber and Stephens (2000) and Bjørnskov (2005) as well as extending findings from US states to a cross-country context. Furthermore, the results emphasize the importance of political competition and the different responses to crisis in countries with different political ideologies, as countries with a rightwing ideology seem to have some tendency to strengthen legal and regulatory quality as a response to crisis.

The effect of a shift in government ideology on the size of government can hardly be interpreted as anything else but an effect of partisan politics. The estimates suggest that going from an ideologically neutral government to a government ‘one standard deviation’ to the right of the middle induces an increase in the size of government index of about 10% of a standard deviation no matter how small or large a majority the government has in parliament. This finding thus reflects similar results from comparisons of US states (Berry et al., 1998; Lee et al., 2004). On the other hand,

rests on entirely objective primary indicators. Further analyses not reported in this paper demonstrate that the remaining economic freedom indices – ‘sound money’ and ‘freedom to trade internationally’ – are also unaffected by government ideology. There is thus no reason to believe that such bias exists, which obviously strengthens the empirical basis for using the indices.

the effect of citizen ideology depends on the strength of the government. At average political competition (2.86), a shock to citizen ideology exerts a 10% increase in the government size index while at complete parity between the government and the opposition the same shock would generate an increase of 23% of a standard deviation.

The importance of political competition is replicated in the cases of legal and regulatory quality. While these dimensions of economic freedom are unaffected by the ideology of the incumbent government, both are strongly affected by citizen ideology. At average political competition, a one deviation shock to citizen ideology generates an increase in legal quality of approximately 13% of a standard deviation while at political parity the same shock would generate a 29% increase in legal quality although the increase in political competition in itself would induce a small decrease in legal quality of about 8% of a standard deviation. Likewise, a one deviation shock to citizen ideology would at average government strength generate an improvement of regulatory quality of about 14% of a standard deviation while the effect at political parity would be about 50% larger (21% of a standard deviation). Along both of the latter dimensions, there also seems to be a differential response to economic crisis, which goes in the opposite direction as what would intuitively be expected. The effects of citizen ideology are therefore of economic significance and may also be difficult to ignore from a politological point of view.

In principle, two different interpretations present themselves to the effects of the ideology of citizens. From a political economy perspective, the effects could reflect a purely ideological preference of the voters that any government regardless of its own ideology must take into consideration in its dealings with the national institutions. In this perspective, the demand of the median voter for institutional quality is affected by citizen ideology and the Downsian median voter result can hence be maintained along this dimension of voting. Indeed, as the institutional response to citizen ideology depends strongly on political competition, these findings are entirely consistent with a Downsian explanation, as parties in highly competitive political environments most probably would have to find a compromise consistent with the median voter ideology if they are to stay in power. Furthermore, increased political competition implies politically weaker governments, which also lends more room for the preferences of the

median voter. With allowance for the importance of political competition, the findings are therefore easily reconcilable with standard theories of the political process.

As noted above, experiments indicate that citizens' political ideology also comes with a set of social norms and beliefs or mental models of how society works. The recent literature on social capital therefore alternatively suggests that such norms and beliefs *per se* can have real economic and political effects that are not necessarily negotiated through the political system while it is likely that citizen ideology captures factors such as merit assumptions that Bjørnskov (2005) argues lead voters to demand better protection of property rights. This literature suggests that social norms can directly affect the efficiency of society and hence implies that citizen ideology could shift the supply curve of institutional quality through e.g. lowering bureaucratic transaction costs.

Overall, since the alternative social capital theory suffers from an inability to explain why effects depend on the degree of political competition, the findings in this paper support a standard Downsian effect of the political ideology of the median voter. If voters are indeed ignorant or indifferent of the importance of economic institutions, the social capital theory may nevertheless seem a reasonable complementary explanation that cannot a priori be rejected. Which interpretation is the more relevant as well as a number of other questions are left to future research. In the meantime, the evidence presented here gives rather strong support for standard theories of voters' demand for institutional policy.

References

- Alesina, Alberto and George-Marios Angeletos. 2005. Fairness and Redistribution: US vs. Europe. Forthcoming in *American Economic Review*.
- Alesina, Alberto, Arnaud Devleeschauwer, William Easterly, Sergio Kurlat and Romain Wacziarg. 2003. Fractionalization. *Journal of Economic Growth*, vol. 8, 155-194.
- Anderson, James E. and Douglas Marcouiller. 2004. Insecurity and the Pattern of Trade: An Empirical Investigation. *Review of Economics and Statistics*, vol. 84 (2), 342-352.
- Annett, Anthony. 2001. Social Fractionalization, Political Instability, and the Size of Government. *IMF Staff Papers*, vol. 48 (3), 561-592.

- Beck, Nathaniel, R. Michael Alvarez, Geoffrey Garrett and Peter Lange. 1993. Government Partisanship, Labor Organization, and Macroeconomic Performance: A Corrigendum. *American Political Science Review*, vol. 87, 945-948.
- Beck, Thorsten, George Clarke, Alberto Groff, Philip Keefer and Patrick Walsh. 2001. New Tools in Comparative Political Economy: The Database of Political Institutions. *World Bank Economic Review*, vol. 15 (1), 165-176.
- Berry, William, Evan Ringquist, Richard Fording and Russell Hanson. 1998. Measuring Citizen and Government Ideology in the American States 1960-1993. *American Journal of Political Science*, vol. 42, 327-348.
- Besley, Timothy and Anne Case. 2003. Political Institutions and Policy Choices: Evidence from the United States. *Journal of Economic Literature*, vol. 41(1), 7-73.
- Beugelsdijk, Sjoerd, Henry L.F. de Groot and Anton B.T.M. van Schaik. 2004. Trust and economic growth: A robustness analysis. *Oxford Economic Papers*, vol. 56, 118-134.
- Bjørnskov, Christian. 2003. The happy few. Cross-country evidence on social capital and life satisfaction. *Kyklos*, vol. 56, 3-16.
- Bjørnskov, Christian. 2005. Does Political Ideology Affect Economic Growth? *Public Choice*, vol. 123 (1-2), 133-146.
- Budge, Ian. 1994. A New Spatial Theory of Party Competition: Uncertainty, Ideology and Policy Equilibria Viewed Comparatively and Temporally. *British Journal of Political Science*, vol. 24 (4), 443-467.
- CIA. 2003. *The CIA World Factbook 2003*. Washington, DC: Central Intelligence Agency.
- Cukierman, Alex and Marianno Tomassi. 1998. When Does It Take a Nixon to Go to China? *American Economic Review*, vol. 88 (1), 180-197.
- Denzau, Arthur T. and Douglass C. North. 1994. Shared Mental Models: Ideologies and Institutions. *Kyklos*, vol. 47 (1), 3-31.
- Di Tella, Rafael and Robert MacCulloch. 2005. Partisan Social Happiness. *Review of Economic Studies*, vol. 72, pp. 367-393.
- Downs, Anthony. 1957. *An Economic Theory of Democracy*. New York: Harper and Row.

- Drazen, Allan and Vittorio Grilli. 1993. The Benefit of Crises for Economic Reforms. *American Economic Review*, vol. 83 (3), 598-607.
- Freedom House. 2003. *Freedom in the World 2003. The Annual Survey of Political Rights and Civil Liberties*. Lanham: Rowman and Littlefield.
- Frey, Bruno and Alois Stutzer. 2000. Happiness, Economy and Institutions. *The Economic Journal*, vol. 110, 918-938.
- Gerring, John. 1997. Ideology: A Definitional Analysis. *Political Research Quarterly*, vol. 50 (4), 957-994.
- Glaeser, Edward L. and Andrei Shleifer. 2002. Legal Origins. *Quarterly Journal of Economics*, vol. 117 (4), 1193-1230.
- Groot, Henry L.F. de, Gert-Jan Linders, Piet Rietveld and Uma Subramanian. 2004. The Institutional Determinants of Bilateral Trade Patterns. *Kyklos*, vol. 57 (1), 103-123.
- Gwartney, James and Robert Lawson. 2002. *Economic Freedom of the World: 2002 Annual Report*. Vancouver, BC: the Fraser Institute.
- Haan, Jacob de and Jan-Egbert Sturm. 2000. On the Relationship Between Economic Freedom and Economic Growth. *European Journal of Political Economy*, vol. 16 (2), 215-241.
- Hall, Robert and Charles I. Jones. 1999. Why do some Countries Produce so much more Output per Worker than Others? *Quarterly Journal of Economics*, vol. 114 (1), 83-116.
- Hansen, Svend Aage. 1984. *Økonomisk Vækst i Danmark 1914-1983*. Copenhagen: Akademisk Forlag.
- Helliwell, John F. 2003. How's Life? Combining Individual and National Variables to Explain Subjective Well-Being. *Economic Modelling* vol. 20, 331-360.
- Heston, Alan, Robert Summers, Aten, Bettina, 2002. Penn World Table Version 6.1. Center for International Comparisons (CICUP), University of Pennsylvania, October.
- Hibbs, Douglas A. Jr. 1977. Political Parties and Macroeconomic Policy. *American Political Science Review*, vol. 71 (4), 1467-1487.
- Huber, Evelyne and John D. Stephens. 2000. Partisan Governance, Women's Employment, and the Social Democratic Service State. *American Sociological Review*, vol. 65, 323-342.
- Kaufmann, Daniel and Aart Kraay. 2002. Growth Without Governance. *Economia*, vol. 3 (1), 169-215.

- Keefer, Philip and Stephen Knack. 2002. Polarization, Politics and Property Rights. Links Between Inequality and Growth. *Public Choice*, vol. 111 (1-2), 127-154.
- Knack, Stephen. 2002. Social Capital and the Quality of Government: Evidence from the U.S. States. *American Journal of Political Science*, vol. 46 (4), 772-785.
- Knack, Stephen and Philip Keefer. 1995. Institutions and Economic Performance: Cross Country Tests Using Alternative Institutional Measures. *Economics and Politics*, vol. 7, 202-227.
- Knack, Stephen and Paul J. Zak. 2002. Building trust: public policy, interpersonal trust, and economic development. *Supreme Court Economic Review*, vol. 10, 91-107.
- Kormendi, Roger and Philip Meguire. 1985. Macroeconomic Determinants of Growth. *Journal of Monetary Economics*, vol. 16, 141-163.
- Lee, David S., Enrico Moretti and Matthew J. Butler. 2004. Do Voters Affect or Elect Policies? Evidence from the US House. *Quarterly Journal of Economics*, vol. 119 (3), 807-859.
- Maddala, G.S. 1992. *Introduction to Econometrics, 2nd Edition*. Englewood Cliffs (NJ): Prentice-Hall.
- McClosky, Herbert. 1964. Consensus and Ideology in American Politics. *American Political Science Review*, vol. 58, 361-382.
- Méon, Pierre-Guillaume and Laurent Weill. 2005. Does Better Governance Foster Efficiency? An Aggregate Frontier Analysis. *Economics of Governance*, vol. 6, 75-90.
- Michelbach, Philip A., John T. Scott, Richard E. Matland and Brian H. Bornstein. 2003. Doing Rawls Justice: An Experimental Study of Income Distribution Norms. *American Journal of Political Science*, vol. 47, pp. 523-539.
- Mitchell, Gregory, Philip E. Tetlock, Barbara A. Mellers and Lisa D. Ordóñez. 1993. Judgments of Social Justice: Compromises Between Equality and Efficiency. *Journal of Personality and Social Psychology*, vol. 65 (4), 629-639.
- Mullins, Willard A. 1972. On the Concept of Ideology in Political Science. *American Political Science Review*, vol. 66 (2), 498-510.
- Nordhaus, William. 1975. The Political Business Cycle. *Review of Economic Studies*, vol. 42, 169-190.
- North, Douglass C. 1991. Institutions. *Journal of Economic Perspectives*, vol. 5 (1), 97-112.

- Paldam, Martin. 2001. Corruption and Religion. Adding to the Economic Model. *Kyklos*, vol. 54, 383-414.
- Paldam, Martin. 2003. The Economic Freedom of Asian Tigers. An Essay on Controversy. *European Journal of Political Economy*, vol. 19 (3), 453-477.
- Poole, Keith T. and Howard Rosenthal. 2001. D-NOMINATE after 10 Years: A Comparative Update to *Congress: A Political-Economic History of Roll-Call Voting*. *Legislative Studies Quarterly*, vol. 26 (1), 5-29.
- Porta, Rafael la, Florencio Lobez-de-Silanes, Andrei Shleifer and Robert Vishny. 1997. Trust in Large Organizations. *American Economic Review*, vol. 87 (2), 333-338.
- Rice, Tom W. and Jan L. Feldman. 1997. Civic Culture and Democracy from Europe to America. *Journal of Politics*, vol. 59, 1143-1172.
- Rice, Tom W. and Alex Sumberg. 1997. Civic Culture and Democracy in the American States. *Publius*, vol. 27, 99-114.
- Rodrik, Dani. 1998. Why Do More Open Economies Have Bigger Governments? *Journal of Political Economy*, vol. 106 (5), 997-1032.
- Rodrik, Dani, Arvind Sumbramanian, and Francesco Trebbi. 2004. Institutions Rule: The Primacy of Institutions over Geography and Integration in Economic Development. *Journal of Economic Growth*, vol. 9 (2), 131-165.
- Roemer, John E. 1994. The Strategic Role of Party Ideology When Voters Are Uncertain About How the Economy Works. *American Political Science Review*, vol. 88 (2), 327-335.
- Rubin, Paul. 2001. Ideology. Pp. 328-336 in Shughart, William F., Laura Razzolini and William F. Shughart, II. The *Elgar Companion to Public Choice*. Rowham (UK): Edward Elgar.
- Scott, John T., Richard E. Matland, Philip A. Michelbach and Brian H. Bornstein. 2001. Just Deserts: An Experimental Study of Distributive Justice Norms. *American Journal of Political Science*, vol. 45 (4), 74-767.
- Siems, Mathias M. 2004. Numerical Comparative Law. Do We Need Statistical Evidence in Law in Order to Reduce Complexity? Working Paper, Department of Law, European University Institute.
- Svensson, Jakob. 1998. Investment, Property Rights and Political Instability: Theory and Evidence. *European Economic review*, vol. 42 (7), 1317-1341.

- Treisman, Daniel. 2000. The Causes of Corruption: A Cross-National Study. *Journal of Public Economics*, vol. 76, 399-457.
- Uslaner, Eric M. 2002. *The Moral Foundations of Trust*. Cambridge (UK): Cambridge University Press.
- Uslaner, Eric M. 2004. Where You Stand Depends Upon Where Your Grandparents Sat. The Inheritability of Generalized Trust. Mimeo, University of Maryland.
- World Bank. 2004. *World Development Indicators*. CD-ROM and on-line database, Washington DC: the World Bank.
- Zak, Paul and Stephen Knack. 2001. Trust and Growth. *The Economic Journal*, vol. 111, 295-321.
- Zimmerman, Ekkart and Thomas Saalfeld. 1988. Economic and Political Reactions to the World Economic Crisis of the 1930s in Six European Countries. *International Studies Quarterly*, vol. 32 (3), 305-334.

Table 1. Descriptive statistics

Variable	Average	Standard deviation	Observations
<i>All observations</i>			
Government ideology	0.06	0.69	297
Citizen ideology	0.03	0.51	244
Size of government	5.33 (1.34)	1.54 (1.03)	266
Legal structure	6.48 (2.17)	1.71 (1.92)	245
Regulation	5.96 (1.42)	0.94 (0.69)	260
Democracy (Gastil index)	1.59	0.68	278
GDP per capita	10,604	7,072	278
Openness	69.06	43.16	278
Population, mil.	33.30	97.09	276
Age over 64	8.54	4.61	300
Ethnic diversity	32.62	22.61	300
Crisis	0.23	0.42	262
Political competition	2.86	5.16	224
<i>Below average government ideology</i>			
Size of government	4.98	1.56	127
Legal structure	6.39	1.68	123
Regulation	5.83	0.96	127
Democracy (Gastil index)	1.64	0.70	145
Crisis	0.24	0.42	128
Political competition	2.36	1.78	111
<i>Above average government ideology</i>			
Size of government	5.63	1.46	142
Legal structure	6.55	1.74	138
Regulation	6.08	0.91	143
Democracy (Gastil index)	1.51	0.65	153
Crisis	0.22	0.42	134
Political competition	3.35	7.03	113

Note: numbers in parentheses refer to the rescaled economic freedom indices used in the analyses.

Table 2. Determinants of government size

Dependent variable Estimation method	Size of government			
	RE	RE	RE	RE
Initial GDP	-.0452** (.0179)	-.0452** (.0177)	-.0355* (.0191)	-.0441** (.0201)
Openness	.0136 (.0934)	-.0026 (.0922)	-.0213 (.0957)	-.0047 (.1065)
Population	-.0140 (.0589)	-.0245 (.0570)	-.0355 (.0574)	-.0171 (.0649)
Age over 64	-.0158 (.0364)	-.0075 (.0922)	-.0196 (.0342)	-.0351 (.0429)
Ethnic diversity	.5828 (.4547)	.6129 (.4587)	.8732* (.4691)	.8573 (.5249)
Common law	.0419 (.2937)	.0497 (.2967)	-.0655 (.2877)	-.0887 (.3151)
Civil law	.3343 (.2772)	.3362 (.2799)	.2367 (.2645)	.1942 (.2873)
Government ideology	.1322* (.0758)	.1528* (.0915)	.1262 (.0828)	.1200 (.0842)
Citizen ideology	.2864 (.1784)	.2797 (.1809)	.6511** (.2724)	.7905*** (.3051)
Political competition, current		.0007 (.0109)		
Strength * gov. ideology		-.0094 (.0224)		
Political competition			.0417 (.0274)	.0407 (.0308)
Strength * cit. ideology			-.1623** (.0755)	-.1864** (.0869)
Crisis				-.1990 (.1406)
Crisis * cit. ideology				-.0189 (.3072)
Observations	216	211	190	188
Countries	58	58	45	44
Pseudo R square	Between .415	.425	.434	.400
	Within .276	.279	.264	.290
Wald Chi Squared / F-statistic	88.32	88.20	76.12	74.26
Breusch-Pagan LM test	39.66***	38.00***	17.01***	16.92***
Hausman test (FE)				

Note: all regressions contain period dummies, regional effects, a dummy for communist regime and a constant term; t-statistics in parentheses. *** (**) [*] denotes significance at $p < .01$ ($p < 0.05$) [$p < .10$].

Table 3. Determinants of legal quality

Dependent variable	Legal system and property rights			
	RE	RE	RE	RE
Initial GDP	.1818*** (.0298)	.1799*** (.0303)	.1943*** (.0394)	.1825*** (.0350)
Openness	-.0142 (.1529)	-.0184 (.1544)	-.1088 (.1933)	.1419 (.1845)
Population	.0319 (.0846)	.0191 (.0858)	-.0514 (.1067)	.0654 (.0989)
Age over 64	-.1861 (.0586)	-.1961*** (.0596)	-.1349* (.0703)	-.2763*** (.0742)
Ethnic diversity	.2732 (.6603)	.1931 (.6751)	.3658 (.9013)	-.5419 (.8176)
Common law	.3801 (.3816)	.4402 (.3877)	.3977 (.5187)	.4442 (.4433)
Civil law	-.1258 (.3569)	-.0881 (.3590)	-.1250 (.4727)	-.1286 (.3948)
Government ideology	-.0159 (.2021)	-.0870 (.2406)	-.0012 (.2152)	.0191 (.2239)
Citizen ideology	.3989 (.3096)	.4196 (.3191)	.6115 (.5229)	.9847** (.4859)
Political competition, current		-.0052 (.0245)		
Strength * gov. ideology		.0211 (.0543)		
Political competition			.0539 (.0517)	.0857* (.0467)
Strength * cit. ideology			-.1465 (.1439)	-.2237* (.1346)
Crisis				.3921 (.3289)
Crisis * cit. ideology				-.4434 (.6729)
Observations	210	205	184	182
Countries	58	58	45	44
Pseudo R square	Between	.589	.579	.559
	Within	.394	.402	.416
Wald Chi Squared / F-statistic		204.63	201.80	153.32
Breusch-Pagan LM test		2.69	1.85	.32
Hausman test (FE)				.32

Note: all regressions contain period dummies, regional effects, a dummy for communist regime and a constant term; t-statistics in parentheses. *** (**) [*] denotes significance at $p < .01$ ($p < 0.05$) [$p < .10$].

Table 4. Determinants of regulatory quality

Dependent variable	Regulation of business, credit and labour			
	RE	RE	RE	RE
Initial GDP	.0202 (.0135)	.0222* (.0130)	.0211 (.0146)	.0106 (.0158)
Openness	.0355 (.0692)	.0192 (.0654)	-.01211 (.0717)	.0216 (.0832)
Population	-.0101 (.0409)	-.0195 (.0379)	-.0331 (.0408)	-.0202 (.0481)
Age over 64	-.0195 (.0266)	-.0204 (.0229)	-.0194 (.0257)	-.0307 (.0333)
Ethnic diversity	.4755 (.3101)	.4960* (.3005)	.6959** (.3327)	.6409* (.3859)
Common law	.4902** (.1946)	.5263*** (.1887)	.4945** (.1999)	.5093** (.2274)
Civil law	.2503 (.1832)	.2594 (.1766)	.1999 (.1827)	.1785 (.2064)
Government ideology	.0294 (.0689)	-.0215 (.0831)	.0524 (.0749)	.0285 (.0740)
Citizen ideology	.3535*** (.1312)	.3475*** (.1308)	.5008** (.1973)	.6394*** (.2263)
Political competition, current		-.0097 (.0092)		
Strength * gov. ideology		.0201 (.0195)		
Political competition			.0198 (.0195)	.0203 (.0226)
Strength * cit. ideology			-.0837 (.0539)	-.0969 (.0640)
Crisis				-.1912 (.1204)
Crisis * cit. ideology				-.1912 (.2569)
Observations	216	211	190	188
Countries	58	58	45	44
Pseudo R square	Between	.435	.437	.510
	Within	.277	.286	.279
Wald Chi Squared / F-statistic		102.59	106.52	100.01
Breusch-Pagan LM test		15.56***	14.19***	6.68***
Hausman test (FE)				8.82***

Note: all regressions contain period dummies, regional effects, a dummy for communist regime and a constant term; t-statistics in parentheses. *** (**) [*] denotes significance at $p < .01$ ($p < .05$) [$p < .10$].

Table 5. Determinants of economic freedom, robustness

Dependent variable Estimation method	Government size		Legal quality		Regulatory quality		
	RE	FE	RE	FE	RE	FE	
Initial GDP	-.0206 (.0130)	-.1318*** (.0297)	.1956*** (.0282)	0.0022 (.0859)	.0039 (.0108)	-.0646** (.0292)	
Openness	.0651 (.0674)	-.0119 (.1509)	.2457* (.1417)	.6206 (.4391)	.0459 (.0552)	.1342 (.1437)	
Population	.0305 (.0411)	1.208 (.7508)	.0652 (.0764)	-5.6746** (2.2982)	-.0077 (.0350)	-.6414 (.7231)	
Age over 64	-.0514* (.0264)	-.0137 (.0672)	-.2615*** (.0574)		-.0255 (.0222)	.0126 (.0638)	
Ethnic diversity	.4378 (.3313)		-.0538 (.6345)		.5184* (.2787)		
Common law	-.0469 (.1982)		.0051 (.3499)		.3241* (.1682)		
Civil law	.0637 (.1804)		-.2816 (.3128)		.1047 (.1521)		
Government ideology	-.0205 (.0488)	.1516** (.0731)	.0302 (.1529)	-.0283 (.2122)	.0227 (.0412)	.0306 (.0728)	
Citizen ideology	.8472*** (.1932)		.7369** (.3684)		.5619*** (.1607)		
Political competition	.0613*** (.0194)		.0718** (.0358)		.0204 (.0165)		
Strength * citizen ideology	-.2139*** (.0546)		-.1966* (.1024)		-.0833* (.0462)		
Crisis	-.1132 (.0852)		.1899 (.2376)	.2733 (.3759)	-.0955 (.0711)	-.1557 (.1296)	
Crisis * cit. ideology	.0541 (.2017)		-.2642 (.4825)	-1.3009 (.9149)	-.3024* (.1709)	-.4879 (.3149)	
Observations	174	216	175	182	174	188	
Countries	43	58	44	44	44	44	
Pseudo R sq.	Between	.616	.012	.693	.002	.509	.000
	Within	.412	.357	.507	.476	.518	.351
Chi Squared / F-statistic		147.02	9.17	225.73	10.50	166.01	6.54
Breusch-Pagan LM test		22.57***		1.42		27.57***	
Hausman test (FE)			1.06		16.64*		17.77*

Note: all regressions contain period dummies, regional effects, a dummy for communist regime and a constant term; t-statistics in parentheses. *** (**) [*] denotes significance at $p < .01$ ($p < .05$) [$p < .10$].

Outliers excluded in the RE estimates are defined as observations with either a residual of more than ± 2 standard deviations.

Table A1. Sources of variables

Source	Name	Description
Gwartney and Lawson (2002)	Size of government	Government involvement in the economy.
	Legal quality	Quality of the legal system and protection of property rights.
	Regulation	Quality of regulation of business, credit and labor.
Penn World Tables, Mark 6.1	GDP per capita	Gross Domestic Product per capita, adjusted for purchasing power parity. The methodology is described in detail in Heston et al. (2002).
	Openness	Imports plus exports as percentage of GDP, adjusted for purchasing power parity.
	Population size	Size of population.
World Bank (2004)	Age over 64	Percentage of population that is over age 64.
CIA (2003)	Common law	Dummies for legal system.
	Civil law	
Alesina et al. (2003)	Ethnic diversity	The probability that two random citizens of a given country do not belong to the same ethnic group.
Freedom House (2003)	Democracy	Political rights, measured on scale from one (full rights) to seven (no rights).
Own variables	Crisis	Dummy variable taking value one if either growth is negative or is half that of the preceding period.
	Political competition	Ratio of seats in parliament held by government parties to seats held by opposition parties. When denoted current, the measure is in five-year averages, otherwise it is in 25-year averages.

Table A2. Countries included

Country	Country	Country
Argentina	<i>Guinea-Bissau</i>	Portugal
Australia	Guyana	<i>Romania</i>
Austria	Hungary	<i>Senegal</i>
Barbados	Iceland	<i>South Africa</i>
Belgium	India	South Korea
Botswana	Ireland	Spain
Brazil	Israel	Sri Lanka
Bulgaria	Italy	Sweden
Canada	Jamaica	Switzerland
Chile	Japan	<i>Taiwan</i>
Colombia	Luxembourg	Thailand
Costa Rica	Madagascar	Trinidad and Tobago
Cyprus	<i>Malawi</i>	Turkey
Czech Republic	Malaysia	United Kingdom
Denmark	Mauritius	Uruguay
Dominican Republic	<i>Mexico</i>	USA
Finland	Netherlands	Venezuela
France	New Zealand	<i>Zambia</i>
Germany	Norway	
Greece	Poland	

Note: countries in italics have only one period of being categorized as fully democratic.

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