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E-mail address: Hans.Pitlik@wifo.ac.at
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Medieninhaber (Verleger), Hersteller: Österreichisches Institut für Wirtschaftsforschung • 1030 Wien, Arsenal, Objekt 20 • Tel. (43 1) 798 26 01-0 • Fax (43 1) 798 93 86 • http://www.wifo.ac.at/ • Verlags- und Herstellungsort: Wien

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# Individualistic Values, Institutional Trust, and Interventionist Attitudes

**Hans Pitlik***

Austrian Institute of Economic Research, Vienna, Austria

**Martin Rode**

Universidad de Navarra, Pamplona, Spain

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## Abstract

Ever since Max Weber (1930) uncovered the cultural origins of capitalism, a common denominator for explanations of economic development is that 'individualistic values' provide a more favorable background for promoting the wealth of nations. This paper investigates the impact of individualist values on personal attitudes towards government intervention, as a potential link of culture and formal institutions. We consider two key components of an 'individualistic culture' to be particularly relevant for attitude formation, namely values related to *self-direction* and *self-determination*. Results indicate that both elements of individualistic values are associated negatively with interventionist preferences. Interestingly, effects of self-direction values on intervention attitudes are much weaker though, than the effects of a strong belief in self-determination. Moreover, the effects of self-direction on intervention preferences are mitigated through higher trust in state actors and lower confidence in major companies, while that does not appear to be the case for self-determination values.

**Keywords**: individualism, self-direction, self-determination, government intervention, institutional trust, preference formation

**JEL Classification** D70 D78 H10 L50

* Corresponding author: Austrian Institute of Economic Research (WIFO), Arsenal Objekt 20, 1030 Vienna, Austria. phone +43 (0)1 7982601240, e-mail: hans.pitlik@wifo.ac.at

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# 1. Introduction

That institutions channel human behavior, and - as a corollary - matter for the economic performance of nations is now part of a conventional wisdom. Following North (1990), formal institutions comprise the set of laws and other codified rules, while informal institutions can best be understood as 'culture', including conventions, customs, moral values, social norms, or traditions. With the availability of new comparative data, a considerable fraction of recent literature explores the effects of formal and informal institutions on various economic outcomes, such as growth, trade, or financial development (e.g., Putnam 1993, Greif 1994, Granato, Inglehart, and Leblang 1996, Guiso, Sapienza and Zingales 2006, Mathers and Williamson 2011, Acemoglu and Robinson 2012, Rode and Coll 2012, Spoalore and Wacziarg 2013). While numerous contributions also discuss the influence of social capital or social trust (e.g., Knack and Keefer 1995, Zak and Knack 2001, Tabellini 2008, Roth 2009, Berggren, Elinder, and Jordahl 2008, Bjørnskov 2012, Algan and Cahuc 2013), recent investigations of potential drivers of successful development argue that 'individualistic values' provide a more favorable cultural background for promoting wealth and prosperity than 'collectivistic values' (Greif 1994, Ball 2001, C.R. Williamson 2009, Tabellini 2010, Gorodnichenko and Roland 2011a, 2011b, Davis 2012, Hansen 2013; Kyriacou 2016), although some authors also hold an opposite view (Swank 1996).

Following authors such as Licht, Goldschmidt, and Schwartz (2005), Guiso, Sapienza, and Zingales (2006), Oliver E. Williamson (2000), and Tabellini (2010), culture has an impact on economic performance through two interrelated, but distinct routes: First, social norms exert a direct motivational effect by impacting on eligible and rational behavior through 'internal rules'. For example, as Weber (1930) forcefully noted, by shaping attitudes towards profit-making and capital accumulation Calvinism has had a deep impact on individual work ethics and economic activities. Second, culture can impact on performance because of its influence on the design and working properties of formal governance structures. A country's laws and institutional framework naturally tend to reflect a significant part of its cultural values and heritage (e.g., Shikida, Francisco de Araujo, and Sant'Anna 2011, Kyriacou 2016). Guiso, Sapienza, and Zingales (2006) and Alesina and Giuliano (2013) provide excellent surveys on related issues. Relatedly, Bjørnskov (2010) points out that generalized trust, as an integral part of a country's social capital, impacts on formal institutions' quality both through improved policy implementation quality in the public sector, and through enhanced ability of citizen-voters to systematically demand 'better' policies and hold politicians accountable (see also Boix and Posner 1998, Jottier and Heyndels 2012). Bjørnskov (2010) however also stresses that a positive effect of social trust on governance quality is visible only if there is a certain intensity of democratic political competition.

Against this background, the purpose of this paper is to explore whether individualistic cultural traits shape attitudes towards government interventions, apart from the hypothetical effect of social trust. All else equal, are more individualist cultures also less inclined to support government interventionism?

We thus add an aspect that is placed primarily at the political demand side of the transmission mechanism from culture to formal institutions. However, instead of searching for a direct association of cultural traits and governance structures, we aim to identify more indirectly its impact on generalized economic policy attitudes and political preference formation. Building on a recent paper by Pitlik and Kouba (2015) on social trust and interventionist attitudes, we also explore to which degree the impact of different individualistic traits is conditional on perceived governance quality. To measure 'individualistic' values we draw on data from World Values Surveys/European Values Studies (WVS/EVS). We consider some key components of an 'individualistic culture', namely values related to non-obedience and personal independence (i.e. self-direction), as well as beliefs in control of one's own life course, and economic individualism (i.e. self-determination), to be particularly relevant for attitude formation.

The paper is structured as follows: Section 2 gives a very brief overview or related literature, while section 3 describes our data generation process and shows some aggregate statistics for different World regions. Section 4 proceeds with an individual-level empirical analysis of intervention preferences, and section 5 concludes.

## 2. Related literature and hypotheses

Recent decades have witnessed a significant increase of scholarly interest in the role that culture plays for the economic success of nations. Especially the notion that individualistic values, in contrast to collectivistic values, are conducive to long-run development has found a positive reception in the literature. Even though exact definitions differ slightly from one another, central concepts of different cultures are well-captured by the sociologist Geert Hofstede (2011: 11):

"On the individualist side we find cultures in which the ties between individuals are loose: everyone is expected to look after him/herself and his/her immediate family. On the collectivist side we find cultures in which people from birth onwards are integrated into strong, cohesive in-groups, often extended families (with uncles, aunts and grandparents) that continue protecting them in exchange for unquestioning loyalty, and oppose other in-groups."[1]

These different cultural values have consequently been argued to have a major influence in economic development. For instance, Gorodnichenko and Roland (2015a, 2015b) provide a survey of relevant cultural psychology literature on differences between individualism and collectivism, related to visions

[1] Similarly, Schwartz (2004) makes a distinction between autonomy (individualistic) and embeddedness (collectivistic) cultures: "In autonomy cultures, people are viewed as autonomous, bounded entities. They cultivate and express their own preferences, feelings, ideas, and abilities, and find meaning in their own uniqueness.... In embeddedness cultures, meaning in life comes largely through social relationships, identifying with the group, participating in its shared way of life, and striving toward its shared goals ... Important values in such cultures are social order, respect for tradition, security, obedience, and wisdom."

of self, differences in cognitive behavior, as well as motivational and relational differences. On that basis, they identify several relevant behavioral differences between individualism and collectivism. According to Gorodnichenko and Roland (2011a, 2011b, 2015a, 2015b) the key economic characteristic of individualistic cultures is to reward personal endeavor and effort, innovation, or other achievements, with higher social status. Collectivism instead fosters conformity and an internalization of collective goals but discourages individuals from striving for outstanding results.

Tabellini (2008, 2010), Williamson (2009), and Williamson and Kerekes (2011), consider four main components of 'economic culture', namely (1) social trust, (2) respect and tolerance, (3) life control (self-determination), and (4) obedience, to be particularly important for economic performance. These components are related to individualistic values, although to somehow different degrees. Following Tabellini (2010: 683), self-determination and non-obedience stand for "an entrepreneurial environment where individuals seek to take advantage of economic opportunities", and symbolize "confidence in the virtues of individualism". Trust and tolerance are important for the operation of (anonymous) economic interaction and exchange, and of governmental institutions. A lack of trust and of tolerance and respect are yet indirectly related to individualism, in that they are typical for societies where individualism is suppressed.

It should be stressed here, that when we talk about individualism versus collectivism in this context, we are referring to systematic differences between 'Western societies' and 'Traditional societies', as indicated by the above quote by Hofstede (2011). What we are not referring to as strongly collectivist societies are the neo-corporatist structures of some European countries, especially those of Scandinavia. These are certainly more collectivist that the comparatively more individualistic cultures of Anglo-Saxon countries, but they are undoubtedly Western in nature, with strong individualistic values, despite the high degree of formal organization that is present all over Scandinavia. Association is voluntary in these countries and any collectivist strain that it might have, is totally based on free choice. In turn, collectivist societies where families and clans play a dominant role are characterized by the fact that association is not voluntary, and its collectivism is strongly coercive.

As a consequence, in individualistic societies one should observe a stronger 'demand' for formal institutions that provide a basic framework to unfold the respective incentive structure. Individualistic values may thus be conducive to the establishment of a more growth-friendly formal framework, in line with protection of property rights, rule of law, and economic freedom (Greif 1994). The idea is one of compatibility of formal and informal institutions. Budzinski (2003), and Boettke, Coyne, and Leeson (2008) argue that it is decisive that a country's formal institutions maps onto its informal rules in order for the former to become a source of economic success. Systematic differences in (cultural) belief systems towards government intervention may therefore be at the heart of slow and long-run changes of governance structures. Over the long-run, a country's institutional framework will be shaped by a series of small policy moves, which reinforce or attenuate the original institutional setting

(Greif 1997). Hence, one may expect that pro-interventionist attitudes, which are shaped by cultural factors, also pave the road of institutional development to incremental changes in that direction.

Recent research indeed reveals a match of individualistic traits and the quality of the economic and political institutional framework. Licht, Schwartz, and Goldschmidt (2005, 2007) and Kyriacou (2016) provide evidence of a positive relationship of different measures of individualism and institutional quality, like the rule of law, absence of corruption, and democratic accountability. All of these are formal institutions, which are regularly found to be conducive to economic growth performance. Inglehart and Welzel (2010) report that 'self-expression values', which are connected with Hofstede's concept of individualism (Inglehart and Oyserman 2004), exert pressure for improvements in democracy. Accounting for reverse causality of democracy and individualism, Gorodnichenko and Roland (2015b) also find individualistic values to be positively related to the development of democratic institutions. In sum, these papers suggest that countries' formal institutions map onto their informal institutions.

A related strand of the literature is concerned with the relationship of social trust and attitudes towards intervention and the regulatory state (Tirole 1988, Aghion, et al. 2010). Here, it's argued that people who lack trust, i.e., people who expect others to behave opportunistically, have a higher propensity to want governments to regulate economic activities. The reason is that they anticipate a higher potential harm from certain transactions. Economic transactions may then be facilitated by an implicit third party guarantee, e.g., in the form of government regulation. Regulation thus could substitute for a lack of information and trust. Therefore, individuals who tend not to trust others engage less in market activities, and demand stricter regulation. Aghion et al. (2010) and Pinotti (2012) accordingly report empirical evidence that distrust is positively associated with political support for regulation.

To summarize, while people with strong individualistic attributes are expected to want governments to refrain from interventions into the personal economic sphere, collectivistic traits may be, as a general rule, associated with a more pro-interventionist view. This is leads us to

*Hypothesis 1: Individualistic cultural traits are negatively related to interventionist attitudes*

Attitude formation will, however, most probably also be influenced by the quality of government services. Presumably, people are less willing to assign a strong interventionist and regulating role to the state, if they have to expect that government is unwilling or unable to perform that role properly. This idea is supported by recent publications: Svallfors (2013) finds that people who perceive state institutions to be efficient and fair have a more positive view of both higher taxes and government spending. For post-soviet transition economies, Dimitrova-Grajzl, Grajzl and Guse (2012) argue that the general public's attitude towards regulation is driven both by trust in market participants and concern about government corruption. Using European Social Survey data for 29 countries, Daniele and Geys (2015) find a more pronounced effect of social trust on welfare state support in countries

where governmental institutions are perceived to be fair and uncorrupted. Pitlik and Kouba (2015) analyze the impact of social trust for public support of government intervention, arguing that a lack of confidence in companies will intensify demand for regulation. However, if people have no confidence in policymakers, this will be associated with a stronger appeal of self-regulation or the refusal of any intervention at all. Transferring this idea to the context on individualistic traits, we formulate the following additional hypotheses.

*Hypothesis 2: High trust in state institutions and low trust in companies are positively related to interventionist preferences.*

*Hypothesis 3: Higher trust in state institutions, as compared to trust in companies, mitigates the negative relationship of individualistic values to interventionist preferences.*

## 3. Data and some stylized facts

Our empirical analysis of the association of individualistic values and government intervention attitudes is largely based on data from the integrated file of the World Values Surveys/European Values Studies (WVS/EVS). The World Values Survey is a global network of social scientists studying changing values and their impact on life perceptions. It consists of representative surveys conducted in almost 100 countries since 1981 using a common questionnaire. The combined data set is currently made up of 6 WVS waves, and 4 EVS waves. Due to missing relevant survey questions, we can only use observations in survey years between 1990 and 2013.

### *3.1 Individualistic traits*

Based on the main ideas of the individualism-collectivism distinction, we identify two different but closely related values and beliefs from WVS/EVS survey questionnaires that are supposed to seize essential aspects of (economic) individualism. These are *self-direction* and *self-determination*.

SELFDIRECTION

The first measure captures the ideal of autonomous, self-directed decision making to make important life choices (SELFDIRECTION). To compose an indicator for self-direction we rely on two different variables. NOOBEDIENCE and INDEPENDENCE are both derived from the general WVS/EVS question "Here is a list of qualities that children can be encouraged to learn at home. Which, if any, do you consider to be especially important? Please choose up to five." We assigned a value of '1' to

SELFDIRECTION if a respondent did select the item 'independence' and did not select the item 'obedience' from the list. [2]

NOOBEDIENCE and INDEPENDENCE both refer to the disapproval of hierarchical decisions without scrutinizing underlying structures. Following Tabellini (2010: 685), people who claim obedience as important, also follow the idea that "good behavior is deemed to result [mainly] from coercion." From this point of view, obedience stands opposed to the concept of social trust, where trusting people in general expect good, i.e. non-opportunistic, behavior from anonymous others. Yet, obedience is not simply 'distrust'; it is also contrary to Schwartz's (2004) notion of "intellectual autonomy" to encourage people to pursue own ideas and intellectual directions independently. Obedience is rather associated with accepting an obeying role and obligations within a legitimately perceived unequal distribution of power, roles, and resources, and it is supposed to be compatible with authoritarian attitudes.[3] This perspective supports the idea that SELFDIRECTION is associated with a higher propensity to reject government intervention, because regulation is always associated with constraints on personal decision making.

SELFDETERMINATION

Individualistic traits are also reflected by values of SELFDETERMINATION, or self-efficacy. Following the socio-psychology researcher Bandura (1977), self-efficacy is the extent or strength of one's belief in one's own ability to complete tasks and reach goals. Closely related is Rotter's (1966) notion of internal vs. external locus of control, which refers to the degree to which individuals expect outcomes to be contingent on own behavior or characteristics, or as a function of pure chance or fate. Individuals who perceive to have an internal locus of control believe in their own ability to control their life course. They interpret personal choices as the main cause of individual success or failure. As one of the first, Feldman (1988) argues that 'economic individualism', measured by the belief that people should get ahead on hard work, is related to a less interventionist attitude. Most people also seem to differentiate between personal incomes acquired effortless, or pure 'luck', and income acquired by personal 'effort'. This distinction matters for individual attitudes towards redistribution (Alesina and Angeletos 2005, Benabou and Tirole 2006, Bavetta and Navarra 2012), and is supposed to matter similarly for government intervention. According to D'Orlando, Ferrante and Ruiu (2010) the belief of fatalism is linked to a stronger demand for job security from labor market institutions. Also Kouba and

[2]Besides 'obedience' and 'independence' the list includes 'good manners', 'hard work', 'feeling of responsibility', 'imagination', 'tolerance and respect for other people', 'thrift saving money and things', 'determination and perseverance', 'religious faith', and 'unselfishness'. That such traits can be seen as personal characteristics of the respondents is motivated by Bisin and Verdier (2001) who assume that parents want their children to have the same cultural trait as themselves.

[3] This also impacts on political preferences regarding, e.g., military interventions and war on terror in the U.S., as Hetherington and Weiler (2009) show.

Pitlik (2014) find that people, who interpret their life course as not at their own disposition, have a more positive attitude towards income equalization and government intervention.

To measure SELFDETERMINATION, we again selected two items from the WVS/EVS database: First, LIFECONTROL is based on the survey question: "Some people feel they have completely free choice and control over their lives, while other people feel that what they do has no real effect on what happens to them. Please use this scale [between] 'none at all' and ... 'a great deal' to indicate how much freedom of choice and control you feel you have over the way your life turns out." On a 1-10 scale, we coded LIFECONTROL as '1' if the respondent chose a score of 7, or higher, otherwise we assigned a '0'. Second, SUCCESS is based on a survey question whether hard work brings success or not, again coded on a 1-10 scale. SUCCESS is assigned a '1', if the respective response was 4 or smaller, meaning that the respondent believes in a positive relationship of effort and success. Accordingly, the compound indicator SELFDETERMINATION gets a value of '1' if (and only if) both LIFECONTROL and SUCCESS are assigned a '1', otherwise '0'.[4]

Figure 1 shows mean values (population shares) of SELFDIRECTION and SELFDETERMINATION over the 2005-2013 period in several world regions.[5] On average, SELFDIRECTION and SELFDETERMINATION go hand in hand in most world regions, but less so in Latin American (lac) and Sub-Saharan Africa (ssa). Highest levels of SELFDIRECTION and SELFDETERMINATION are observed in the East Asia & Pacific region (eap) and in North America (na), as represented by the U.S: and Canada. SELFDIRECTION values are on average high in Western Europe (we), but SELFDETERMINATION values are relatively low there.

[4] In a principal component factor analysis NOOBEDIENCE, INDEPENDENCE, LIFECONTROL and SUCCESS load on two distinctive factors, EigenValues > 1. NOOBEDIENCE and INDEPENDENCE load heavily on one, LIFECONTROL and SUCCESS on the other factor. It thus appears reasonable to construct two compound indicator variables.

[5] We calculated country averages by region.

*Figure 1: Self-direction and self-determination values in World regions*

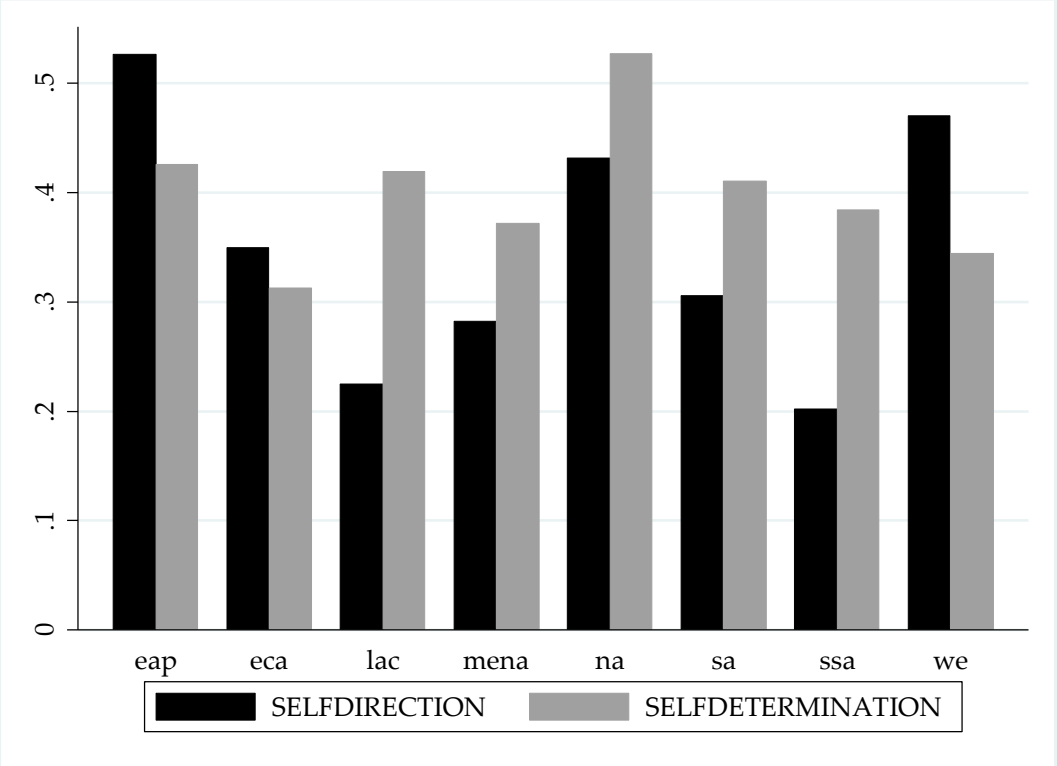
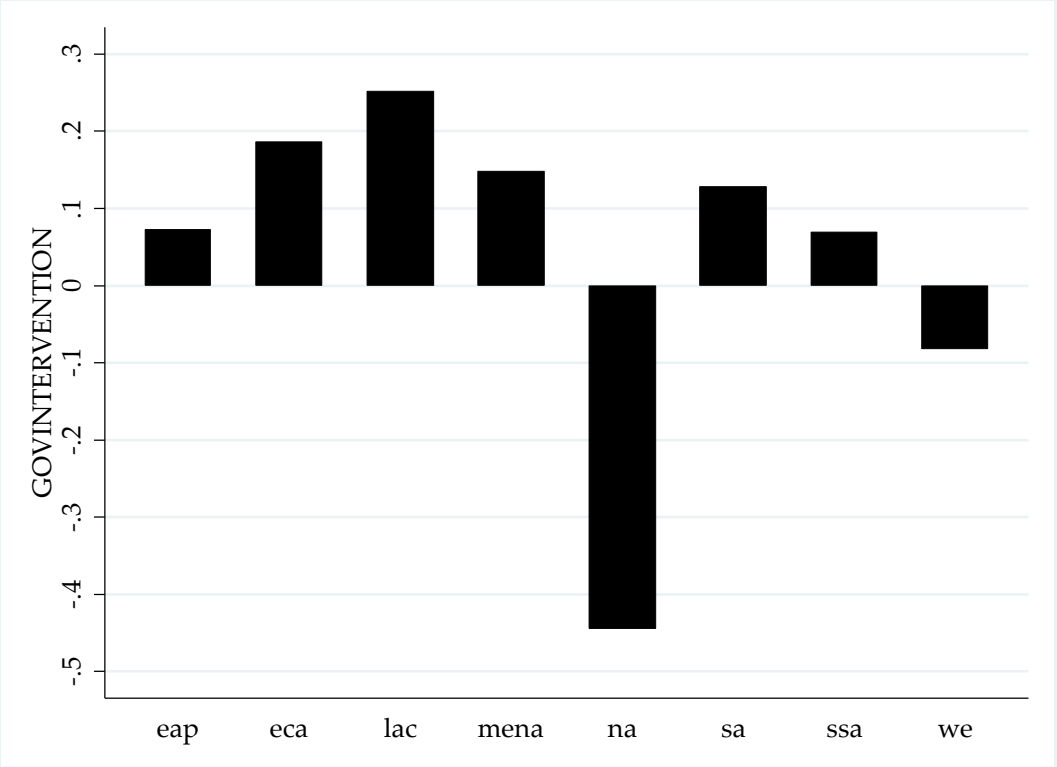



*Figure 2: Government intervention attitudes in World regions*



*3.2 Government intervention attitudes*

Individual attitudes towards government intervention are assessed by using WVS/EVS data from all survey waves since the 1990s until 2013[6], where we focus on universal preferences regarding the appropriate role of government. Following Pitlik and Kouba (2015), responses to three distinct survey questions are used:

- Government responsibility: "People should take more responsibility to provide for themselves vs. The government should take more responsibility to ensure that everyone is provided for."
- State ownership: "Private ownership of business should be increased vs. Government ownership of business should be increased."
- Competition attitudes: "Competition is good. It stimulates people to work hard and develop new ideas vs. Competition is harmful. It brings out the worst in people."

Original responses are Likert-scaled on a 1-10 point ladder. A principal component factor analysis over all available observations (across time and countries) confirms that the three variables load on a single principal factor (EV = 1.3). The resulting factor variable GOVINTERVENTION, with a mean of zero and standard deviation of one, is employed as dependent variable in the empirical analysis, where higher values indicate a more positive view of government intervention.

Figure 2 illustrates average interventionist attitudes over the period 2005-2013 in the different regions of the world. As it can be observed, respondents from North America (na) have by far the most skeptical view of government intervention, while Latin Americans (lac) seem to have a much more positive view of the latter. Similarly, respondents from Eastern Europe and Central Asia (eca), i.e. mostly post-communist states, also present stronger interventionist attitudes, followed by the East Asia and Pacific region (eap), the Middle East & North Africa (mena), and Sub-Sahara Africa (ssa). Interestingly, respondents from Western Europe (we) also have, on average, a slightly more negative view of government intervention.

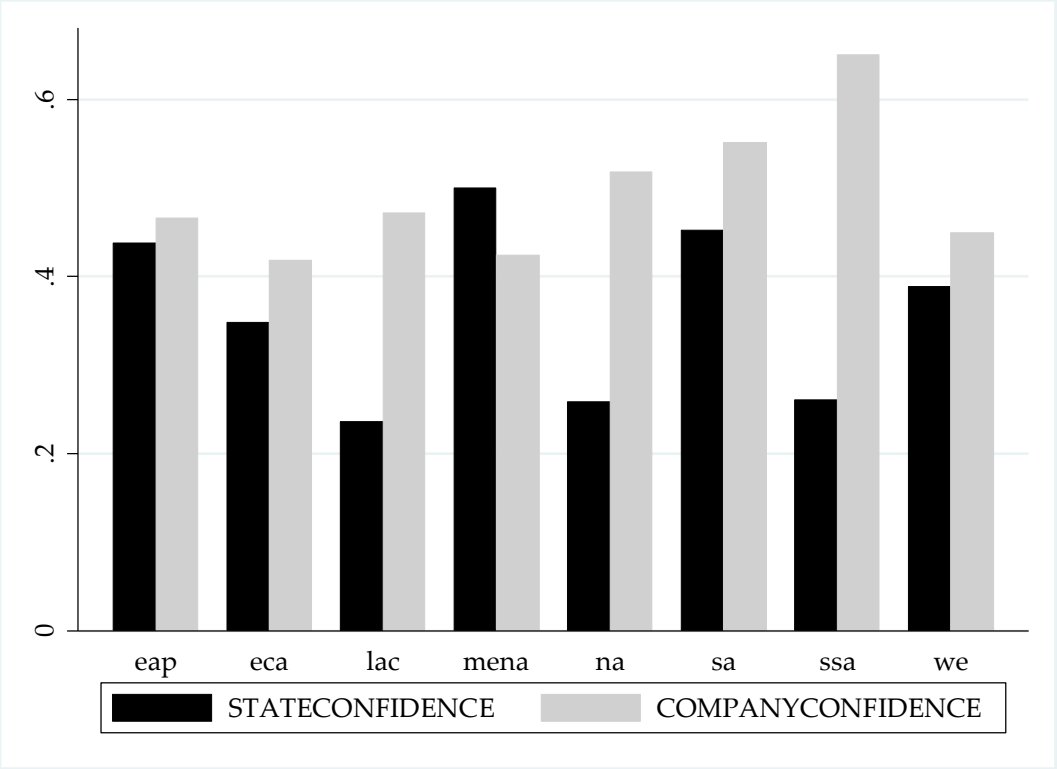
*3.3 Trust in formal institutions*

Individual assessment of institutional quality is derived from institutional confidence data of the WVS/EVS dataset. It has been shown that corruption, fraud, unlawful and unethical behavior are clearly associated with an erosion of of both, trust in state institutions (Clausen, Kraay, and Nyiri 2011, Grönlund and Setälä 2012), and trust in major private companies (Shleifer 2004), which is why we need to take both aspects into account.

[6] The respective survey questions were introduced to the WVS, starting in the early 1990s.

To proxy for confidence in formal institutions, we first calculate the mean of a number of related institutional confidence questions. The compound variable STATECONFIDENCE employs information on trust in parliament, government, civil service, political parties, and the justice system.[7] We re-coded all values to scores between 0 and 1, with higher values indicating more confidence in state actors. Secondly, personal attitudes regarding intervention are certainly also driven by trust in firms, as reviewed above (Pitlik and Kouba 2015). Therefore, we employ data on confidence in major companies (COMPANYCONFIDENCE), also re-coded to a 0-1 scale, as a proxy for individual trust in the private sector. The difference of our variables STATECONFIDENCE and COMPANYCONFIDENCE is henceforth denoted as TRUSTDIFFERENCE, lying in a range between -1 and +1. Values greater than zero indicate that respondents have more confidence in government institutions than in private companies, while values smaller than zero indicate that respondents have more confidence in private companies than in government institutions.

*Figure 3: Confidence in state and companies in the World regions since 2005*




[7] The respective survey question is: "I am going to name a number of organisations. For each one, could you tell me how much confidence you have in them: is it a great deal of confidence, quite a lot of confidence, not very much confidence or none at all?" If the survey did not ask for a certain institution, we dropped it from calculation. As confidence in institutions is highly correlated, and a Principal Factor Analysis confirms that all variables score on a single factor, this appears to be justified. We only included observations when we have responses for at least three (out of five) institutions.

Figure 3 displays trust in state actors and in major companies in different world regions since 2005. On average, STATECONFIDENCE is high in Western Europe (we) and North America (na), and low in Latin America (lac) and Sub-Sahara Africa (ssa). Trust in major companies (COMPANYCONFIDENCE) is higher than trust in state actors in all world regions, but Middle East and North Africa.

*3.4 Some basic country-level correlations*

Table 1 displays some simple pairwise correlations of GOVINTERVENTION, institutional confidence, and individualistic traits, as calculated from country-averaged observations in survey years between 1990 and 2013.[8] Asterisks (*) denote statistical significance at the 5%-level.

*Table 1: Pairwise correlation of intervention attitudes, individualistic values and trust measures*

| | GOVINTER-VENTION | STATE-CONFIDENCE | COMPANY-CONFIDENCE | SELF-DIRECTION | SELF-DETERMINATION |
|---|---|---|---|---|---|
| GOVINTERVENTION | 1 | | | | |
| STATECONFIDENCE | -0.10 | 1 | | | |
| COMPANYCONFIDENCE | -0.02 | +0.61* | 1 | | |
| SELFDIRECTION | -0.25* | +0.19* | -0.15* | 1 | |
| SELFDETERMINATION | -0.33* | +0.10 | +0.22* | +0.00 | 1 |
| SOCIALTRUST | -0.31* | +0.32* | +0.04 | +0.51* | +0.11 |

Simple pairwise correlation of country-level averages in survey years. * denotes 5%-level of significance

Both SELFDIRECTION and SELFDETERMINATION are negatively related to interventionist preferences, as expected. The relationship is slightly stronger for SELFDETERMINATION. Country-year means of SELFDIRECTION and SELFDETERMINATION are uncorrelated, supporting the idea that they represent different aspects of individualism. In turn, neither STATECONFIDENCE nor COMPANYCONFIDENCE are significantly related to intervention attitudes at the country level, while both measures are positively related to each other ($r = +0.61$).

The exercise also reveals systematic differences of SELFDIRECTION and SELFDETERMINATION in their individual relationship with the institutional confidence measures: SELFDETERMINATION is positively related to both trust measures, but the relationship is significant only in the case of COMPANYCONFIDENCE. In turn, we observe a positive and significant correlation of SELFDIRECTION with trust in state institutions, while the correlation with trust in major companies is negative. Recalling that SELFDIRECTION indicates the disapproval of hierarchical decision-making, this means that in countries with a substantial skepticism regarding hierarchies, trust in governmental institutions is stronger, on average. A speculative explanation for such a seemingly paradoxical result may be that

[8] Calculating the respective correlations we only take into account those country-year observations for which we also have a value for GOVINTERVENTION.

exactly this kind of normative skepticism is associated with the design of good governance mechanisms, which in turn are also the cause of a higher confidence in state institutions.[9]

Against this background, concerns could also be raised about potential endogeneity of interventionist preferences and individualistic values. For a country-level aggregate analysis one may certainly argue that all types of cultural values and GOVINTERVENTION are driven by an unknown factor, such as per capita income, reflecting the notion that cultural change is ultimately driven by changes in living standards. In essence, this question reflects a debate summarized by Paldam and Gundlach (2008) on the two basic views that link institutional development and long run economic growth: While one strand of literature sees development as a process where steady economic growth causes transitions of all institutions, the other understands an exogenous selection of institutions as a driver of development. At this point, it should be clear that our paper would be part of the latter notion, but this does not mean that we can rule out the existence of the first, nor is this in any way desirable. Overall, Paldam and Gundlach (2008) demonstrate convincingly that neither view can be proven to be right or wrong with the available data or empirical techniques, and conclude that both views tell us important details about the highly complex process of economic development.

In the following we concentrate on individual-level analyses, for two reasons. First, our hypotheses are formulated on an individual level, and our main variables of interest are defined there. Moreover, we also look at individuals with different characteristics within countries, which would be impossible if we estimated on an aggregated country-average level. Second, it is quite unlikely that one individual's preferences are pivotal for the design and quality of policies and institutions, thus eliminating at least one potential source of reverse causality as a major problem.

[9] Indeed we observe a positive relationship of country averages of SELFDIRECTION to several governance quality measures, such as legal quality and property rights security-measures from Economic Freedom of the World (Gwartney, Lawson, and Hall 2015), or International Country Risk Guide (PRS Group, 2015). However, as suggested in section 3.1, this may be driven to a certain degree by the close relationship of SELFDIRECTION with generalized trust in other (unknown) people (SOCIALTRUST), as indicated by r = +0.51. SOCIALTRUST is frequently associated with better quality of political institutions, although causality may run in both directions, and robustness of effects is not always clear (Nannestad 2008, Bjørnskov 2010, Bjørnskov 2011, Robbins 2012). It is sometimes not possible to disentangle the impact of (more or less) closely related cultural traits.

# 4. Results of individual level estimates

*4.1 Estimation approach*

In this section we estimate the determinants of attitude formation at the individual level. To test Hypotheses 1 and 2, government intervention preferences (GOVINTERVENTION) of person i living in country j in year t are regressed on individualistic values SELFDIRECTION and SELFDETERMINATION, confidence in state institutions and major companies, plus a set of individual level covariates ($X_{ijt}$):

$$(1)\ \text{GOVINTERVENTION}_{ijt} = \alpha_0 + \alpha_1 \text{INDIVIDUALISM}_{ijt} + \alpha_2 \text{STATECONFIDENCE}_{ijt} + \alpha_3 \text{COMPANYCONFIDENCE}_{ijt} + \alpha_4 X_{ijt} + \alpha_5 Z_{jt} + \varepsilon_{ijt}.$$

We expect coefficient $\alpha_1$ of the individualism variable to be negative, whereas for STATECONFIDENCE we expect $\alpha_2 > 0$, and for COMPANYCONFIDENCE $\alpha_3 < 0$.

Individual covariates X include sex, age groups, household income (low income and high income groups, middle income as reference group), educational status (low and high education, middle education as reference group), and employment status (self-employed, unemployed). We also include dummy variables for protestant, roman-catholic, and for orthodox Christian denomination, recognizing the notion that both, economic views and personal characteristics are influenced by religious denomination (Chadi and Krapf 2015). These covariates are included in all specifications.

Further individual controls are included in some specifications. SOCIALTRUST is a dummy variable that indicates generalized trust towards unknown and anonymous others. As explained in section 2, we generally expect people who trust others to also have a lower propensity to demand regulatory interventions. Moreover, we control for political ideology effects on interventionist attitudes by adding a dummy variables for self-reported political left-wing or right-wing orientation (centrist as reference group). Leftist attitudes are frequently and very strongly associated with a pro-interventionist stance, but for right-wingers this is less clear. Provided that interventionist attitudes are closely related to trust and political orientation on a left-right scale, we gain additional confidence in our results, if the central variables of interest survive the introduction of both indicators.

To test Hypothesis 3, we further examine if the effects of individualistic traits on intervention attitudes are conditional on relative trust, by introducing an interaction variable of individualistic traits and institutional trust.

$$(2)\ \text{GOVINTERVENTION}_{ijt} = \beta_0 + \beta_1 \text{INDIVIDUALISM}_{ijt} + \beta_2 \text{TRUSTDIFFERENCE}_{ijt} + \beta_3 (\text{INDIVIDUALISM}_{ijt} \times \text{TRUSTDIFFERENCE}_{ijt}) + \beta_4 X_{ijt} + \beta_5 Z_{jt} + \eta_{ijt}.$$

Hence, the marginal conditional effect of INDIVIDUALISM is given by

$$\frac{\partial \text{GOVINTERVENTION}_{ijt}}{\partial \text{INDIVIDUALISM}_{ijt}} = \beta_1 + \beta_3 \times \text{TRUSTDIFFERENCE}_{ijt}.$$

We expect the coefficient $\beta_1$ of the individualist cultural variable to show a negative sign, *if we do not control for the interaction effect*. This would indicate that people with more individualistic values are indeed more skeptical towards government interventions. On the other hand, coefficient $\beta_2$ is expected to be positive, *if we do not control for the interaction effect*, indicating that people who trust state actors more than major companies will prefer interventions. In case of individualistic cultural traits one would expect $\beta_3 > 0$, i.e., the individualistic prior against intervention may be mitigated by a better individual assessment of relative governance quality.

We do not include specific country-level covariates to our estimations for two basic reasons. First, there are almost certainly countless idiosyncratic country- specific factors, which could impact on intervention preferences, and it is hardly possible to control for all of them. To account for this unobservable heterogeneity in the cross-country dimension, country fixed effects are recommended. However, if we include such country effects we are running into the problem that for some variables of interest, such as democracy levels, there is only very little variation over time, which would greatly complicate this practice. Secondly, for a number of countries we only have one observation, as they only took part in one survey wave. In this case, country-dummies absorb all cross-section information for economic and political variables such as GDP per capita, democracy, or policies at the time of the survey. For countries with two or more observations, a fixed effects within-transformation effectively changes the interpretation of the respective coefficients from a 'level perspective' to a 'change-over-time' perspective. Put differently, including covariates such as GDP per capita or democracy measures simultaneously with country fixed effects provides us information about the effects of *changes* in GDP or *changes* in political institutions, while we are interested in the effects of levels in this case. Moreover, there are probably additional country idiosyncrasies at a certain points in time that may influence individual responses, but which are impossible to account for. One may think of political scandals, or any particular economic events, driving attitudes towards government intervention, or away from it. To control for these unknown effects, we opted for including country-year-fixed effects $Z_{jt}$, which simultaneously account for all country-level aspects affecting the population at the time the opinion survey was conducted.

To get an idea of some of the main country level factors, we proceed by estimating

$$(3) \quad \widehat{Z_{jt}} = \gamma_0 + \gamma_1 \Gamma_{jt-1} + \delta_t + \epsilon_{jt},$$

where $\widehat{Z_{jt}}$ are the estimated country-year fixed effects from equation (2), and $\Gamma_{jt-1}$ is a vector of country-year-level variables, lagged by one year. $\widehat{Z_{jt}}$ represent the 'unexplained' group effects adjusted for differences in the individual level variables, including individualistic traits. $\delta_t$ are time effects to account for unobserved overall heterogeneity in the time dimension. Following Angrist and Pischke

(2009) group effects are estimated by WLS. As this is not the main topic of our paper, we confine the whole exercise to three covariates of major interest:

(i) GDP PER CAPITA to account for Wagner's Law demand effects of higher nation's wealth (Bird 1971, Lamartina and Zaghini 2011). A positive coefficient would indicate a higher general demand for government with increasing of GDP per capita and would be in line with Wagner's Law. GDP data are from the World Development indicators data base (in 10,000 constant 2005 US-$).

(ii) An indicator of DEMOCRACY from Freedom House (2015) to account for possible effects of political freedom in democratic versus autocratic structures.[10] One may expect that in democratic regimes voters expect more services from their government; on the other hand it could be expected that in less democratic regimes, we observe an underprovision of public goods and people therefore are inclined to demand more services from government.

(iii) A measure for actual government intervention. We use the Economic Freedom of the World summary index score (Gwartney, Lawson, and Hall 2015) to measure the overall market-orientation of a country's policies (EFWINDEX).[11] The idea is that if we already observe substantial market-orientation of policies, people may ceteris paribus demand less additional liberalization.

*4.2 Baseline results*

Table 2 displays results of pooled OLS estimates. Standard errors are clustered at the country level to correct for the Moulton bias (Moulton, 1990). Robust P-values are reported below the coefficients in parentheses.

Before turning to our covariates of interest, we take a brief look at the control variables where we find the following: Women are more inclined to government intervention than men, reflecting the well-known fact that they are more risk averse. While we never find age-related attitudes, unemployed people are more, and self-employed are less in favor of intervention. Roman Catholics and especially Protestants prefer less, while people with Orthodox Christian denomination prefer more intervention.

[10] We employ the political rights index which is concerned with Electoral Process, Political Pluralism and Participation, and Functioning of Government. We re-coded the original data to a 0-10 scale with higher values indicating more democracy.

[11] The Economic Freedom of the World index is published annually by the Canadian Fraser Institute and includes 43 specific components, all measured on a zero to ten scale, reflecting the degree to which the economic institutions and policies of a country correspond to free market principles. A '0' represents the least free and a '10' the most free. The summary EFWINDEX is composed of five major areas: (i) Size of government: Expenditure, taxes, and enterprises, (ii) Legal structure and security of property rights, (iii) Access to sound money, (iv) Freedom to trade internationally, and (v) Regulation of credit, labor, and business. The summary score is the mean of the ratings in each of the five areas. While the EFW index now covers 141 countries, data for the summary index are available for approximately 100 countries at five-year intervals before 2000, and annually since then. In our data, missing EFWINDEX-scores in some WVS/EVS survey years between 1990 and 1995, and between 1995 and 2000 were replaced by linearly interpolated values.

We also find significant negative effects of higher income and higher education, as compared to middle or low level income and education.

*Table 2: Determinants of individual government intervention attitudes (individual base model)*

| **DEPENDENT VARIABLE GOVINTERVENTION** | **(1)** | **(2)** | **(3)** | **(4)** | **(5)** | **(6)** | **(7)** | **(8)** |
|---|---|---|---|---|---|---|---|---|
| SELFDIRECTION | -0.052 | -0.052 | -0.050 | -0.052 | | | | |
| | (0.000) | (0.000) | (0.000) | (0.000) | | | | |
| * TRUSTDIFFERENCE | | | 0.105 | 0.094 | | | | |
| | | | (0.000) | (0.001) | | | | |
| SELFDETERMINATION | | | | | -0.331 | -0.335 | -0.334 | -0.325 |
| | | | | | (0.000) | (0.000) | (0.000) | (0.000) |
| * TRUSTDIFFERENCE | | | | | | | 0.035 | 0.044 |
| | | | | | | | (0.173) | (0.152) |
| STATECONFIDENCE | | 0.186 | | | | 0.274 | | |
| | | (0.000) | | | | (0.000) | | |
| COMPANYCONFIDENCE | | -0.332 | | | | -0.280 | | |
| | | (0.000) | | | | (0.000) | | |
| TRUSTDIFFERENCE | | | 0.249 | 0.260 | | | 0.265 | 0.273 |
| | | | (0.000) | (0.000) | | | (0.000) | (0.000) |
| SOCIALTRUST | | | | -0.033 | | | | -0.019 |
| | | | | (0.003) | | | | (0.079) |
| LEFT ORIENTATION | | | | 0.182 | | | | 0.177 |
| | | | | (0.000) | | | | (0.000) |
| RIGHT ORIENTATION | | | | -0.126 | | | | -0.075 |
| | | | | (0.000) | | | | (0.002) |
| FEMALE | 0.135 | 0.129 | 0.129 | 0.125 | 0.111 | 0.106 | 0.106 | 0.104 |
| | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| AGE1530 | -0.008 | -0.002 | -0.003 | 0.004 | 0.008 | 0.018 | 0.017 | 0.022 |
| | (0.601) | (0.892) | (0.866) | (0.826) | (0.596) | (0.229) | (0.231) | (0.166) |
| AGE60PLUS | -0.002 | -0.001 | -0.003 | -0.006 | 0.006 | 0.004 | 0.004 | 0.004 |
| | (0.928) | (0.944) | (0.864) | (0.715) | (0.805) | (0.863) | (0.862) | (0.853) |
| SELFEMPLOYED | -0.115 | -0.115 | -0.113 | -0.104 | -0.090 | -0.081 | -0.081 | -0.071 |
| | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.001) |
| UNEMPLOYED | 0.087 | 0.086 | 0.089 | 0.077 | 0.060 | 0.059 | 0.059 | 0.047 |
| | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.001) |
| ROMANCATHOLIC | -0.060 | -0.064 | -0.068 | -0.041 | -0.044 | -0.048 | -0.048 | -0.029 |
| | (0.001) | (0.001) | (0.001) | (0.019) | (0.001) | (0.000) | (0.000) | (0.024) |
| PROTESTANT | -0.111 | -0.112 | -0.114 | -0.098 | -0.089 | -0.089 | -0.089 | -0.084 |
| | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| ORTHODOX | 0.064 | 0.066 | 0.066 | 0.087 | 0.070 | 0.078 | 0.078 | 0.090 |
| | (0.019) | (0.017) | (0.019) | (0.003) | (0.004) | (0.004) | (0.004) | (0.001) |
| INCOME_LOW | 0.114 | 0.108 | 0.109 | 0.101 | 0.100 | 0.098 | 0.098 | 0.091 |
| | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| INCOME_HIGH | -0.093 | -0.077 | -0.079 | -0.068 | -0.067 | -0.061 | -0.061 | -0.055 |
| | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| EDUCATION_LOW | 0.120 | 0.107 | 0.105 | 0.104 | 0.124 | 0.110 | 0.110 | 0.108 |
| | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| EDUCATION_HIGH | -0.134 | -0.129 | -0.130 | -0.129 | -0.111 | -0.109 | -0.109 | -0.109 |
| | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| _CONS | -0.002 | 0.065 | -0.002 | -0.024 | 0.100 | 0.102 | 0.099 | 0.062 |
| | (0.877) | (0.019) | (0.878) | (0.121) | (0.000) | (0.000) | (0.000) | (0.000) |
| N | 309557 | 243713 | 243713 | 193518 | 198389 | 176727 | 176727 | 140167 |
| countries | 99 | 92 | 92 | 88 | 88 | 85 | 85 | 81 |
| Adj. R-square | 0.138 | 0.146 | 0.145 | 0.165 | 0.181 | 0.187 | 0.187 | 0.204 |
| F-stat (model) | 54.3 | 47.5 | 48.3 | 41.2 | 65.5 | 77.0 | 78.9 | 84.9 |

Pooled OLS with standard errors clustered at country level. Cluster-robust p-values reported below coefficients in parentheses. All estimates include fixed country-year dummies.

Turning to our variables of special interest, results show the expected negative association of SELFDIRECTION and SELFDETERMINATION with GOVINTERVENTION, regardless of the exact specification (Hypothesis 1). There is, however, a notable difference with respect to coefficient size, as the effect of SELFDETERMINATION is substantially stronger (-0.33, which is one third of a standard deviation of GOVINTERVENTION) than the effect of SELFDIRECTION (-0.05, or 5 percent of a standard deviation of the dependent variable).

Results for STATECONFIDENCE and COMPANYCONFIDENCE in specifications (2) and (6) are stable and clear: The higher individual trust in state actors and the lower trust in major companies, the stronger are pro-interventionist attitudes. To calculate the effects of individualistic values conditional on confidence in state and major companies, we use TRUSTDIFFERENCE in specifications (3) and (7). As expected, the 'base term' TRUSTDIFFERENCE and the interaction variable are both positive. However, it is well known that in models with interaction terms the total marginal effect that a variable exerts on the dependent variable consists of two parts; the coefficient on the interaction term multiplied by the interacting variable, as well as the coefficient on the individual variable of interest (Brambor et al., 2006; de Haan et al. 2013). For easier interpretation we prefer a graphical illustration of marginal effects. Figure 4 is based on model (3), Figure 5 on model (7).

Figure 4 shows that at a low levels of confidence in state actors, and high confidence in companies, SELFDIRECTION is associated with a lower demand for government interventions, while at high TRUSTDIFFERENCE levels it is even positively related to GOVINTERVENTION. What is important to take into account here is that, given our standard deviation of TRUSTDIFFERENCE, the region that we can safely make a claim about is roughly between -0.5 and 0.5. This means that at very low levels of confidence in state actors, and high confidence in companies, SELFDIRECTION is associated with a lower demand for government interventions, while the contrary situation of very high state confidence and low company confidence is probably driven by outliers and should not be overemphasized, as the effects are not statistically significant from zero in this region.

*Figure 4: Marginal effects of SELFDIRECTION on government intervention attitudes*

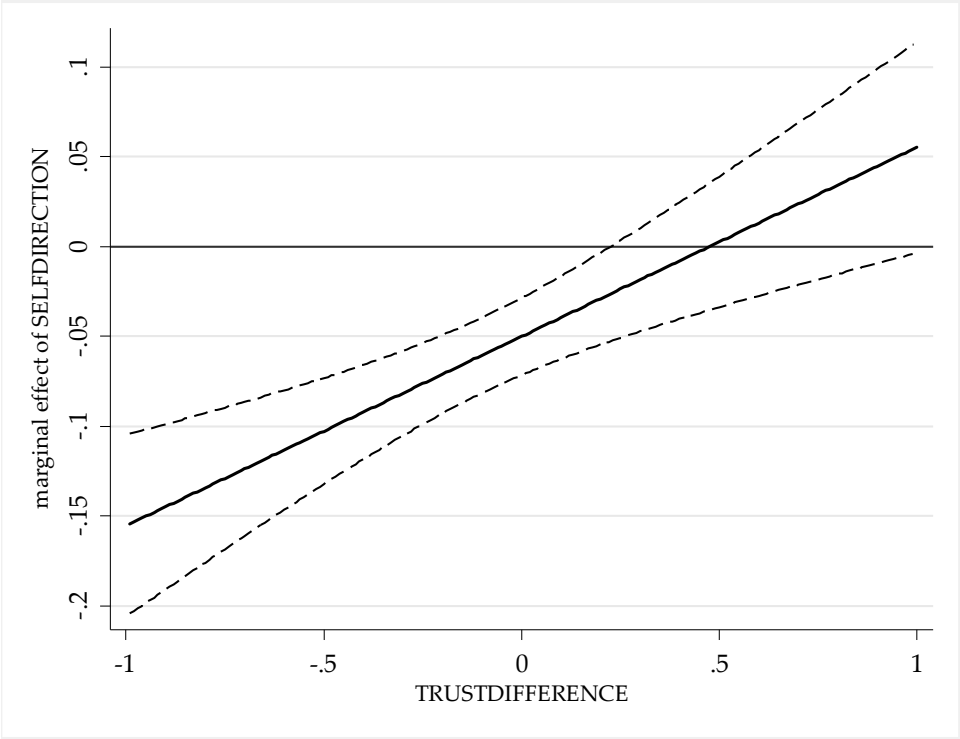
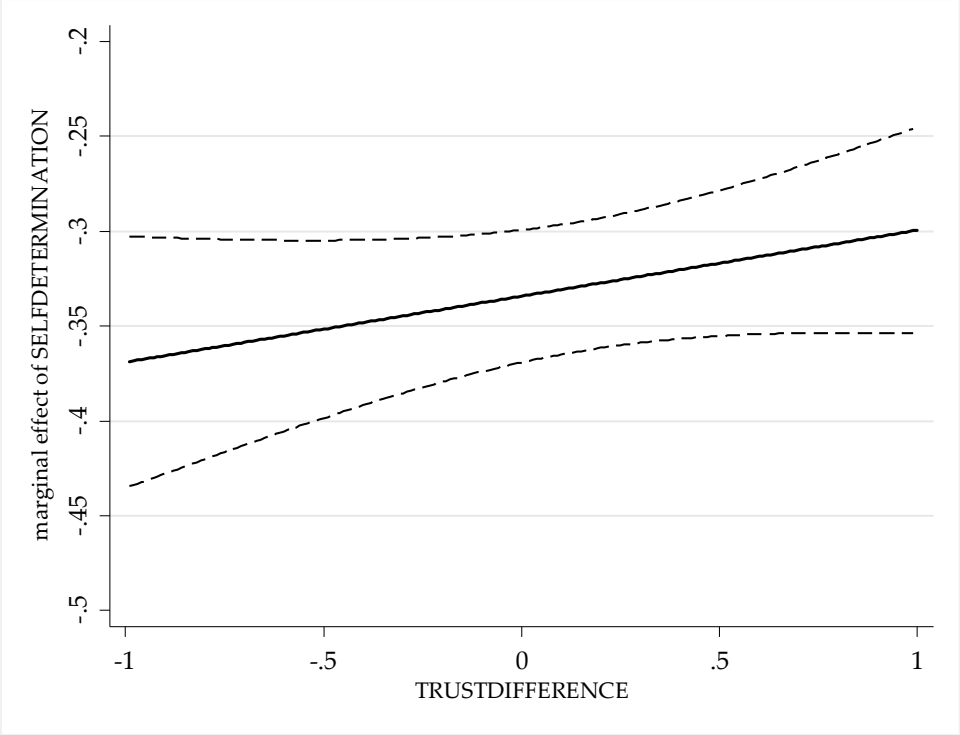



*Figure 5: Marginal effects of SELFDETERMINATION on government intervention attitudes*



In Figure 5, which is based on specification (7),the interaction term of SELFDETERMINATION with TRUSTDIFFERENCE is positive, but not significant at conventional levels. This suggests that the negative impact of SELFDETERMINATION on interventionist attitudes is prevalent regardless whether trust in state institutions is low and confidence in major companies is high, or not. The respective marginal effect is around -0.35 in the relevant regions of TRUSTDIFFERENCE.

An important question that is raised by our results is why the association of SELFDIRECTION with GOVINTERVENTION is mediated by TRUSTDIFFERENCE, while the association of SELFDETERMINATION and GOVINTERVENTION is not? A possible answer might come from the fact that the absence of SELFDIRECTION reflects a personally much more coercive environment for the individual than the absence of SELFDETERMINATION. If individuals value obedience and reject independence they systematically support the view that decision-making capabilities in important matters of life should be delegated to a higher authority. Hence, changes in SELFDIRECTION views of such individuals and their impact on attitudes towards GOVINTERVENTION will greatly depend on how these people perceive the authority of the state and major companies, as either positive or negative. In turn, neither the normative belief that hard work should bring success, nor the feeling of being in control of one's own life have a lot to do with personal views on authority. Therefore, it seems only logical that an increase in SELFDETERMINATION values and its association with attitudes towards GOVINTERVENTION are not mitigated by personal views on governmental trust as compared to confidence in companies, and the legitimacy of its authority.

In specifications (4) and (8) we add the control variables ideological orientation and social trust, as a kind of sensitivity test. As expected, political left orientation is positively related to intervention attitudes. The coefficient is rather strong (+0.18). Right wingers have a more negative view of intervention (-0.13 in specification (4) and -0.08 in (8)) as compared to political centrists. SOCIALTRUST has the expected negative sign, but the coefficient is rather small. Most importantly, including these control variables does not change the previous results.

*4.3 Estimating the country-year group level effects*

Table 3 shows results of pooled OLS estimates of country-year group level effects of individualistic traits. The country-year averages FE_SELFDIRECTION and FE_SELFDETERMINATION are calculated from the individual estimation equations (3) and (7) in Table 2. GDP PER CAPITA is the only variable that is statistically significant in all specifications. In contrast to expectations based on Wagner's Law, the coefficient is negative, indicating that we have a more positive view of government interventions in countries with a lower level of economic development. Effects are quite strong, as indicated by standardized beta-coefficients around -0.3.

DEMOCRACY also shows a negative sign, meaning that higher levels of political freedom are associated with a less positive view of government interventions, but the effect is substantially weaker than for GDP PER CAPITA and significant in only one specification.

*Table 3: Country-level determinants of Government Intervention Attitudes*

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
|---|---|---|---|---|---|---|---|---|
| DEPENDENT VARIABLE: | FE_SELFDIRECTION | | | | FE_SELFDETERMINATION | | | |
| GDP PER CAPITA | -0.062 | | | -0.044 | -0.069 | | | -0.074 |
| | [-0.324] | | | [-0.242] | [-0.314] | | | [-0.360] |
| | (0.000) | | | (0.011) | (0.001) | | | (0.005) |
| DEMOCRACY | | -0.020 | | 0.008 | | -0.013 | | 0.015 |
| | | [-0.210] | | [0.074] | | [-0.139] | | [0.148] |
| | | (0.028) | | (0.467) | | (0.184) | | (0.152) |
| EFWINDEX | | | -0.091 | -0.057 | | | -0.067 | -0.017 |
| | | | [-0.315] | [-0.194] | | | [-0.236] | [-0.059] |
| | | | (0.001) | (0.074) | | | (0.022) | (0.657) |
| N | 215 | 215 | 208 | 198 | 156 | 156 | 151 | 141 |
| countries | 91 | 90 | 89 | 86 | 84 | 83 | 81 | 78 |
| Adj. R-square | 0.319 | 0.208 | 0.329 | 0.337 | 0.400 | 0.262 | 0.385 | 0.417 |
| F-stat (model) | 15.0 | 10.5 | 14.5 | 11.7 | 15.8 | 10.7 | 14.6 | 11.3 |

Pooled OLS with standard errors clustered at country level. Standardized (beta)-coefficients in brackets. Cluster-robust p-values reported below beta-coefficients in parentheses. All estimates include time period dummies.

The economic freedom measure EFWINDEX also has a negative sign, which implies that higher economic freedom is associated with a reduced demand for government intervention. The effects are significant at a 5%-level when we do not control for the two other variables, but it turns insignificant when GDP PER CAPITA and DEMOCRACY are included.

*4.4 Decomposition of individualistic traits*

This subsection reports regressions of GOVINTERVENTION on the four sub-components of individualistic traits and controls (Table 4). We only show the results for the most parsimonious specification (odd column numbers) and a specification including the full set of control variables with the interaction effects (even column numbers).

The two components of SELFDIRECTION, NOOBEDIENCE and INDEPENDENCE behave exactly as the compound variable. Isolated effects are negative and weak; interaction with TRUSTDIFFERENCE is positive and significant. The size of the effects is also similar to SELFDIRECTION. We find negative effects of individualistic traits that disappear slowly when people have higher trust in state authorities as compared to major companies. At TRUSTDIFFERENCE > +0.5 all negative effects of NOOBEDIENCE or INDEPENDENCE vanish completely.

Regarding the components of SELFDETERMINATION, our general results are confirmed in the separate regressions of GOVINTERVENTION on LIFECONTROL and SUCCESS. The negative relationships of both components are much stronger than for the self-direction components. However, our exercise also

reveals that the impact of LIFECONTROL is conditional on relative trust in state actors vs. companies, while this is not the case for SUCCESS. Moreover, SUCCESS is substantially stronger correlated with GOVINTERVENTION than LIFECONTROL, with a coefficient size of -0.39 as compared to -0.11.

*Table 4: Determinants of individual government intervention attitudes (decomposed model)*

| **DEPENDENT VARIABLE: GOVINTERVENTION** | **(1)** | **(2)** | **(3)** | **(4)** | **(5)** | **(6)** | **(7)** | **(8)** |
|---|---|---|---|---|---|---|---|---|
| NOOBEDIENCE | -0.042 | -0.040 | | | | | | |
| | (0.000) | (0.000) | | | | | | |
| *TRUSTDIFFERENCE | | 0.103 | | | | | | |
| | | (0.000) | | | | | | |
| INDEPENDENCE | | | -0.045 | -0.048 | | | | |
| | | | (0.000) | (0.000) | | | | |
| *TRUSTDIFFERENCE | | | | 0.051 | | | | |
| | | | | (0.031) | | | | |
| LIFECONTROL | | | | | -0.108 | -0.103 | | |
| | | | | | (0.000) | (0.000) | | |
| *TRUSTDIFFERENCE | | | | | | 0.061 | | |
| | | | | | | (0.010) | | |
| SUCCESS | | | | | | | -0.385 | -0.385 |
| | | | | | | | (0.000) | (0.000) |
| *TRUSTDIFFERENCE | | | | | | | | 0.018 |
| | | | | | | | | (0.514) |
| TRUSTDIFFERENCE | | 0.228 | | 0.270 | | 0.255 | | 0.278 |
| | | (0.000) | | (0.000) | | (0.000) | | (0.000) |
| SOCIALTRUST | | -0.033 | | -0.033 | | -0.029 | | -0.023 |
| | | (0.003) | | (0.003) | | (0.007) | | (0.031) |
| LEFTDUM | | 0.182 | | 0.182 | | 0.183 | | 0.173 |
| | | (0.000) | | (0.000) | | (0.000) | | (0.000) |
| RIGHTDUM | | -0.126 | | -0.126 | | -0.117 | | -0.081 |
| | | (0.000) | | (0.000) | | (0.000) | | (0.000) |
| N | 309685 | 193591 | 310223 | 193947 | 309190 | 193769 | 201695 | 142161 |
| countries | 99 | 88 | 99 | 88 | 99 | 88 | 88 | 81 |
| Adj. R-square | 0.137 | 0.165 | 0.137 | 0.164 | 0.139 | 0.166 | 0.191 | 0.214 |
| F-stat (model) | 53.9 | 39.7 | 53.8 | 39.4 | 53.9 | 40.6 | 102.1 | 118.7 |

Pooled OLS with standard errors clustered at country level. Cluster-robust p-values reported below coefficients in parentheses. All estimates include country-year fixed effects. Further control variables see Table 2.

## 5. Conclusions

The role of different aspects of culture in shaping formal political institutions, and the way that such formal arrangements influence human behavior has attracted a lot of research interest ever since the onset of the 20th century. A common denominator of explanations of successful development is that 'individualistic' values provide a more favorable background for promoting the wealth of nations, and that traits associated with individualism are conducive to the establishment of 'good', i.e. growth-friendly, formal governance structures, in line with the rule of law and economic freedom.

In the present paper, we investigate the impact of individualistic values with personal attitudes towards government interventions, as a potential link of culture and formal institutions. We consider four sub-components of an 'individualistic culture', namely (1) non-obedience, (2) independence, (3) life control

perception, and (4) belief in hard work as a source for economic success, to be particularly relevant for attitude formation. Descriptive factor analysis shows that non-obedience and independence load heavily on one factor (SELFDIRECTION), whereas life control perception and belief in hard work load heavily on a different factor (SELFDETERMINATION), which may be defined as the general belief that 'every man/woman is the architect of his/her own future'.

Our results indicate that individualistic traits are associated negatively with government intervention preferences. Effects of SELFDIRECTION values on intervention preferences are much weaker than the effects of a strong belief in the relevance of one's own efforts. Moreover, the effects of SELFDIRECTION on government intervention preferences are mitigated through higher confidence in state actors and lower confidence in major companies, while that does not appear to be the case for SELFDIRECTION. All in all this may be an indication that, in particular, the belief in one's own abilities as a driving factor of success, and the idea that economic achievement is rooted in personal effort and not in pure luck are highly relevant for the formation of government intervention attitudes. Provided that over the long-run a country's institutional framework is shaped by a series of (smaller) policy moves, which reinforce or attenuate original institutional settings, systematic differences in cultural belief systems regarding government intervention could thus also be at the root of slow changes in governance structures.

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## Appendix

### Summary statistics (individual level)

| Variable | Obs | Mean | Std. Dev. | Min | Max |
|---|---|---|---|---|---|
| GOVINTERVENTION | 313099 | -0.015 | 1.001 | -2.09 | 2.88 |
| | | | | | |
| SELFDIRECTION | 309557 | 0.370 | 0.483 | 0 | 1 |
| SELFDETERMATION | 198389 | 0.370 | 0.483 | 0 | 1 |
| NOOBEDIENCE | 309685 | 0.648 | 0.477 | 0 | 1 |
| INDEPENDENCE | 310223 | 0.498 | 0.500 | 0 | 1 |
| LIFECONTROL | 309190 | 0.612 | 0.487 | 0 | 1 |
| SUCCESS | 201695 | 0.564 | 0.496 | 0 | 1 |
| | | | | | |
| STATECONFIDENE | 260825 | 0.461 | 0.233 | 0 | 1 |
| COMPANYCONFIDENCE | 288650 | 0.467 | 0.279 | 0 | 1 |
| TRUSTDIFFERENCE | 246764 | -0.004 | 0.269 | -1 | 1 |
| SOCIALTRUST | 301004 | 0.282 | 0.450 | 0 | 1 |
| | | | | | |
| FEMALE | 313099 | 0.512 | 0.500 | 0 | 1 |
| AGE1530 | 313099 | 0.300 | 0.458 | 0 | 1 |
| AGE60PLUS | 313099 | 0.164 | 0.370 | 0 | 1 |
| SELFEMPLOYED | 313099 | 0.095 | 0.294 | 0 | 1 |
| UNEMPLOYED | 313099 | 0.088 | 0.284 | 0 | 1 |
| ROMANCATHOLIC | 313099 | 0.272 | 0.445 | 0 | 1 |
| PROTESTANT | 313099 | 0.125 | 0.330 | 0 | 1 |
| ORTHODOX | 313099 | 0.121 | 0.326 | 0 | 1 |
| INCOME_LOW | 313099 | 0.252 | 0.434 | 0 | 1 |
| INCOME_HIGH | 313099 | 0.399 | 0.490 | 0 | 1 |
| EDUCATION_LOW | 313099 | 0.167 | 0.373 | 0 | 1 |
| EDUCATION_HIGH | 313099 | 0.326 | 0.469 | 0 | 1 |
| LEFTDUM | 251481 | 0.253 | 0.434 | 0 | 1 |
| RIGHTDUM | 251481 | 0.314 | 0.464 | 0 | 1 |