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*Socio-economic Sciences and Humanities Europe
moving towards a new path of economic growth
and social development - Collaborative project*

The interrelation of informal institutions and governance quality in shaping Welfare State attitudes

Hans Pitlik (WIFO), Ludek Kouba (MUAF)

Contribution to the Project

The research paper investigates how informal and formal institutions interact in the formation of Welfare State attitudes. It thus contributes to a better understanding of reform acceptance and reform dynamics.

Keywords: Political economy of policy reform, welfare reform, welfare state

The interrelation of informal institutions and governance quality in shaping Welfare State attitudes*

Abstract

This paper addresses empirically determinants of individual support for the Welfare State. We examine the interrelation of informal institutions with the perceived quality of a country's institutional framework. As a proxy for informal institutions, we concentrate on three core beliefs (trust in other people, perceived control over one's own life, and religiousness) which reflect different aspects of the way people feel about internal and external constraints in managing their own lives. To analyze preferences we follow a comprehensive concept of the Welfare State, measuring attitudes toward its two basic roles, (income) redistribution and government intervention. For this purpose the paper uses survey data from the World Values Survey/European Values Study as well as different indicators for governance quality.

Our results indicate that people who interpret their life course as being not at their own disposition report a substantially more positive attitude toward income equalization and government interventions. A higher quality of public administration and low confidence in major private companies amplify preferences for redistribution and intervention of people under such an external locus of control. Social trust is generally associated with higher support for redistribution and government intervention only if perceived quality of administration is high and confidence in companies is low. People who assert themselves as religious are less favorable toward income equalization. While variation in administration quality does not appear to have an impact on the relationship between religiousness and income equalization preferences, religious people are substantially less supportive of redistribution and government intervention especially if confidence in major companies is high.

JEL codes: D74, D78, P35

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Executive Summary

European Welfare States face a double reform challenge: to address new social risks as a consequence of globalization, de-industrialization, and demographic change on the one hand, and to cope with a serious public finance crisis on the other. The literature on Welfare State reforms frequently deals with (formal) institutional barriers to change, i.e. on the political supply side. However, it usually neglects an important aspect on the demand side. Perceptions of the general public are a crucial factor for the acceptance and legitimacy of Welfare State reforms.

Besides individual self-interest, Welfare State attitudes are shaped by stable cultural and social norms, conventions, moral values, or personal traits. The paper identifies key informal institutions (core beliefs) determining personal support for the Welfare State, and analyzes the interrelation with the perceived quality of a country's formal institutional framework. The concept is in accord with Douglass North's conception of emphasizing the importance of compatibility between formal and informal institutions. The main case is that people are willing to confer an important role to government only if that is in line with their core beliefs. To analyze preferences we follow a comprehensive concept of the Welfare State, measuring attitudes toward its two basic roles, (income) redistribution and government intervention. For this purpose we use survey data for 37 EU/OECD-members from the World Values Survey/European Values Study as well as different indicators for governance quality.

We concentrate on three informal institutions, which are typically said to be highly persistent: social trust, belief in control over one's own life, and religiousness.

A priori, the effect of trust in other people ('generalized' or 'social' trust) is not clear. On the one hand, social trust may reduce transaction costs of Welfare State provision and limit free rider-problems; thus wasteful expenditures on redistributive policies are reduced and people may therefore have a more positive view on the Welfare State in general. On the other, people with higher generalized trust are in favor of less strict regulations and state control as they do not necessarily perceive a need to regulate. Our empirical results indicate that social trust is generally associated with higher support for redistribution and government intervention only if perceived quality of administration is high and confidence in companies is low.

As social trust is probably not the most appropriate concept to an analysis of people's attitudes to the Welfare State, since it matters only in case of conditional effects, we would rather suggest employing the concept 'locus of control'. The main idea is based on the construct of general expectancies for internal versus external control of reinforcement from psychology,

developed by Rotter (1966). We consider 'internal locus of control' or 'belief in oneself', characterized by strong features of individualism such as self-confidence, initiative and optimism, to be associated with a reduced support for the Welfare State. An external locus of control is characterized by the conviction that outcomes of their actions are not consequences of own effort and skills, and is associated with stronger pro-Welfare State attitudes.

Our results indicate that in line with our expectations control over one's own life is a major driving force of individual Welfare State attitudes. People who perceive a high internal locus of control believe in their own ability to control their life course and to influence the world around them. They interpret their life course as being at their own disposition and that personal choices are at a main cause of individual success or failure. Our tests unambiguously show that people who interpret their life course as being not at their own disposition report substantially more positive attitudes toward income equalization and state interventions. A higher quality of public administration and low confidence in major private companies amplify preferences for redistribution and intervention of people under an external locus of control.

On the one hand, religion can be understood as a substitute for a state provided social system and thus as a factor reducing demand for Welfare State provisions. On the other, religious people who are not convinced about their abilities to control their lives entirely can appreciate government interventions as an additional compensatory mechanism in terms of inequalities. Our empirical results indicate that people who assert themselves as religious are less favorable toward income equalization. While variation in administration quality does not appear to have an impact on the relationship between religiousness and equalization preferences, religious people are substantially less supportive of both redistribution and government intervention especially if confidence in major companies is high.

As regards policy relevant conclusions, it is a widely accepted fact that informal institutions are highly persistent and can only hardly be transformed. The frequency of changes of general ways of thinking is no fewer than in order of decades. If one wants to affect Welfare State attitudes as a precondition for the acceptance of a fundamental change, one must address the people's core beliefs. Probably the most meaningful strategy to do this is to focus on education systems and complementarily on social policy in a long term perspective. In a society with a high share of independent, self-confident, active citizens it is easier to introduce reforms which require a substantial overhaul of the Welfare State with a stronger focus on personal responsibility and provision.

1 Introduction

European Welfare States face a double challenge: On the one hand, governments are confronted with a rising demand to address social risks from globalization, de-industrialization, demographic change and changes in labor conditions (Rodrik, 1998; Iversen and Cusack, 2000). On the other hand, Welfare State retrenchment, comprising both substantial cutbacks of benefits, services, and labor market-regulations, is often required to improve competitiveness and to consolidate public finances (Pierson, 2002).

Political Economy has contributed to a better understanding of various impediments to structural reforms. Persistence of inefficient policies is often explained by formal institutional arrangements that generate gridlock and veto positions of powerful political players. Successful policy change is frequently attributed to a crisis-type culmination of economic problems leading to a substantial shift of the political equilibrium (Rodrik, 1996; Pitlik and Wirth, 2003; Heinemann, 2004; Starke 2006; Vis and van Kersbergen, 2007). This literature however usually neglects an important aspect on the 'demand side': Perceptions of the general public are a crucial factor for the acceptance and legitimacy of Welfare State reforms. Lack of support for far-reaching reforms and persistence of unsustainable social security systems may then also be explained by established mass opinions, if important factors shaping these attitudes are also constant over time (e.g. Brooks and Manza, 2006).

Research on public opinion formation is flourishing (e.g. Feldman, 2003), and a growing number of contributions focus on determinants of individual and collective attitudes toward redistribution (e.g. Fong, 2001; Corneo and Grüner, 2002; Blekesaune and Quadagno, 2003; Bénabou and Tirole, 2006; Alesina and Giuliano, 2009; Aghion et al., 2010; Dallinger, 2010; Jaeger, 2013; Margalit, 2013). Attitudes certainly depend on individual self-interest, but research clearly reveals that political and economic preferences are also shaped by cultural and social norms, conventions, moral values, codes of behavior and personal traits (e.g., Feldman, 1988; Feldman and Steenbergen, 2001; Guiso, Sapienza, and Zingales, 2006; Luttmer and Singhal, 2011). Highly persistent informal institutions and core beliefs could hence be at the heart of explanations for a lack of willingness to Welfare State reforms.

A potential drawback of this strand of literature is that with only few exceptions (Algan, Cahuc, and Sangnier, 2011; Rothstein, Samanni, and Teorell, 2011; Svallfors, 2012) the perceived efficiency of government, which should also be important for individual preference formation, is disregarded. Even if core beliefs and social norms are inherently stable their impact on

Welfare State preferences may still be conditional on satisfaction with general governance quality and public service provision.

This paper addresses direct determinants of a support for the Welfare State, and examines the interrelation of informal institutions with the perceived quality of a country's institutional framework. We concentrate on three core beliefs (trust in others, perceived control over one's own life, and religiousness), considered to be especially important for Welfare State attitude formation. These core beliefs reflect to a certain extent different degrees in the way people feel about internal and external constraints in managing their lives. For this purpose we use survey data from the World Values Survey/European Values Study as well as different indicators for and measures of governance quality.

To analyze preferences we follow a comprehensive concept of the Welfare State, measuring attitudes toward its two basic roles, (income) redistribution and government intervention. The idea is not to investigate and derive 'demand driving factors' for specific Welfare State functions (say, provisions for health care, disability, unemployment, or old age), but to assess a broader view of the public on the appropriate role of government. The paper hence aims to contribute to a general understanding of those factors which shape the scope and depth of Welfare State reforms in a broad sense.

The paper is organized as follows. Section 2 develops a conceptual framework, defines relevant concepts, and briefly reviews the literature on the role of informal institutions for preference formation, economic behavior, and economic success. This section also develops the main hypotheses as regards Welfare State attitudes and thus sets the stage for empirical analyses. Section 3 proceeds with a discussion of data and measurement issues, as well as a descriptive analysis of stylized facts. In section 4 we perform the empirical tests. Section 5 summarizes and concludes.

2 Informal institutions and Welfare State attitudes

2.1 The basic idea

The notion that institutions channel the behavior of individuals and - as a consequence - also matter for economic performance of nations has gained a lot of attention over recent decades. Institutions have been intensively discussed for a long time as so called deeper causes of economic development. In that respect, many authors acknowledge North's definition as "... rules of the game in a society or, [...] the humanly devised constraints that shape human interaction" (North, 1990: 3). North (1990: 4) further notes that these constraints include both "formal written rules as well as typically unwritten conduct of behaviour that underlie and supplement formal rules", i.e. formal *and* informal institutions. Compatibility between formal and informal institutions is desirable for successful economic development. The simple reason is that people must be able to understand formal rules to behave according to them. Moreover, they should willingly accept and support the formal rules in place.

Many papers concerned with the relationship of institutions and economic success yet deal in fact only with genuine economic and political institutions, and numerous papers stress the essential role of *formal governance* structures for development and growth (e.g., Knack and Keefer, 1995; Mauro, 1995; Hall and Jones, 1999; Rodrik, Subramanian and Trebbi, 2004; Engerman and Sokoloff, 2003; Acemoglu, Johnson and Robinson, 2004; Djankov, 2009; Acemoglu and Robinson, 2012; Bjørnskov, 2012; Rode and Coll, 2012).

Besides inevitable problems of measurement, analysis of informal institutions suffers from ambiguous definitions and terminology. For example, Parlevliet (2007: 45) identifies informal rules with taboos, customs, traditions and social norms. Raiser (1997: 2) interprets informal institutions as a collection of social norms, conventions and moral values. Claudia Williamson (2009: 372) refers to informal institutions as private constraints stemming from norms, culture and customs that emerge spontaneously. In contemporary research, the terms 'culture', 'social capital' and 'informal institutions' are used as strongly related and overlapping concepts.¹

Culture-based explanations for economic phenomena can already be found in seminal works of Adam Smith, John Stuart Mill and Karl Marx. Perhaps the most famous contribution dealing with economic effects of culture – The Protestant Ethic and the Spirit of Capitalism – by Max

¹ In this paper, we prefer the term informal institution as the most general and predominantly economic concept which enables to include the highest number of partial terms and conceptions, although in the literature on Welfare State issues, the term culture is comparably or even more widespread.

Weber (1930) is more than a century old. Since the early 1990s (particularly Putnam, 1993), a wave of new approaches emerged which re-attracted attention to the role of culture for economic development (Guiso, Sapienza and Zingales, 2006; Tabellini, 2010; Williamson and Kerekes, 2011; Mathers and Williamson, 2011; Shoham and Malul, 2012) or in shaping formal political and economic institutions (Licht, Goldschmidt, and Schwarz, 2007; Tabellini, 2008). Tabellini (2008: 259) identifies culture as "beliefs about the consequences of one's action, where such beliefs are purposefully manipulated by earlier generations or by deliberate experimentation."² Guiso, Sapienza and Zingales (2006b: 2) focus on persistence and define culture as "... customary beliefs and values that ethnic, religious, and social groups transmit fairly unchanged from generation to generation."³

In line with this definition, we interpret informal institutions as particular ways of thinking and codes of behavior. The simple idea, then, is that inherited basic beliefs impact on one's attitudes and (economic) decision-making and thus increase the predictability of individual behavior. Core beliefs about oneself and the relation of the individual to society will almost certainly shape attitudes toward the formal institutions of the Welfare State and personal preferences for its main functions, redistribution and provision of services:

The main case of the paper is that people are willing to confer an important role to government only if that is in line with their core beliefs.

A crucial problem in that respect is that despite growing research interest we still do not have a clear understanding *which* beliefs and traits have a decisive impact on economically relevant behavior. A generally accepted economic or psychological model that transforms social values and beliefs into attitudes and human behavior does not yet exist.⁴ In the next subsections we elaborate on the concept in more detail, referring to three informal institutions that are probably important for Welfare State preferences, i.e.

- a belief in trustworthiness of other people (generalized social trust),

² Following Tabellini (2008), a more traditional understanding defines culture as "social conventions and individual beliefs that sustain Nash equilibria as focal points in repeated social interactions or when there are multiple equilibria."

³ The alternative concept of 'social capital' was discussed almost exclusively by sociologists. Putnam (1993: 167) defines it as "features of social organizations, such as trust, norms, and networks that can improve the efficiency of society by facilitating coordinated action." Another popular definition is provided by Knack and Keefer (1997: 1251), as "trust, cooperative norms, and associations within groups."

⁴ Hence, the search for empirical regularities is often guided primarily by common sense. Such a pragmatic approach also enables to cover behavioral practices that can hardly be separated from norms, values or beliefs.

- a belief in control over one's own life, and
- a belief in a higher moral or spiritual authority (religiousness).

The willingness to delegate important responsibilities for income equalization and provision of certain services to politicians and bureaucrats probably also depends on the perceived problem-solving capacity of the government. Using data for 29 European countries from the European Social Survey Welfare State module, conducted in 2008, Svallfors (2012) for example finds that the quality of government has a significant impact on public opinion about taxes and spending. People who perceive government institutions as efficient and fair have a more positive attitude toward both higher taxes and higher government expenditures. We label that our base

Hypothesis 0:

People are more willing to give the state a stronger role if government is perceived as non-corrupt, competent and impartial.

However, it is not clear a priori to which extent a strong support of the Welfare State determined by certain core beliefs is reduced when perceived quality of service provision is low and governance structures are weak.⁵ For example, a well-run, high quality public administration supposedly mitigates a possible denial of redistribution and government intervention that is based on certain core beliefs of individualism. Taking into account the relationship between informal and formal institutions,

The second case the paper makes is that the impact of core beliefs on Welfare State attitudes is conditional on the perceived quality of governance structures.

2.2 Social trust

In the literature on informal institutions (and culture) trust belongs to the most popular and widely used concepts. Yet, the concept is not without ambiguities. Roth (2009: 104) summarizes three different conceptions: thick trust, interpersonal (or generalized) trust and institutional (or systemic) trust. Thick trust is generated by family networks, interpersonal trust is based on interactions among people in modern societies who do not know each other,

⁵ Svallfors (2012) reports that government quality also conditions the impact of egalitarianism on attitudes to taxes and spending; if government is high egalitarianism has a clearly stronger impact on these attitudes.

and institutional trust is related to confidence of people in formal (government) institutions. Interpersonal trust is the most frequently used concept; we use this concept as well, however, but prefer to call it social trust (see also Bergh and Bjørnskov, 2011).

The literature focusing on the relationship between more generally interpreted informal institutions (or culture) and economic development uses (social) trust as a proxy for measure of informal institutions. A higher level of trust in a country is considered to be conducive to growth, as a consequence of easier cooperation and lower transaction costs in the economy (e.g. Greif, 1994; De Groot, Linders, Rietveld and Subramanian, 2004; Bjørnskov, 2006).⁶ In a seminal paper, Knack and Keefer (1997) show that among different concepts of social capital only the social trust variable is associated with growth, and countries with a high trust level grow faster. La Porta, Lopez-de-Silanes, Shleifer and Vishny (1997), Whiteley (2000) and Zak and Knack (2001) confirm this result. However, evidence is weakened by Beugelsdijk, de Groot and van Schaik (2002), as regards robustness, and by Berggren, Elinder and Jordahl (2008).⁷ A more recent strand of literature (Knowles and Weatherston, 2006; Williamson, 2009; Tabellini, 2010; Williamson and Kerekes, 2011) combines World Value Surveys question on social trust together with questions on life control (see below), respect for others and a negative valuation of obedience to measure informal institutions. Williamson and Kerekes (2011) report that these four distinct components encourage secure property rights and, more generally, work as rules governing interaction between individuals, including facilitated market production.

While within the economic development literature social trust is often treated as a part of a broader set of informal institutions or more generally defined culture, recognition of social trust aspects in Welfare State research is even more prominent. Besides broader explanations of Welfare State origins based on (combinations of) cultural, political and social factors (Fong, 2001; Corneo and Grüner, 2002; Alesina and Giuliano, 2009; Dallinger, 2010; Jacobsen 2011; Luttmer and Singhal, 2011), there is a line of research focusing particularly or even exclusively on the importance of social trust as a determinant of Welfare State size. Naturally, this literature points out Scandinavia, since Nordic countries dispose both of high social trust levels and of vast and generous welfare states. However, the question about the direction of causality remains unsettled. On the one hand, Barr (2004) or Kumlin and Rothstein (2008) argue that a

⁶ Bjørnskov (2012) summarizes five potential transmission channels between social trust and growth: schooling, governance, investments, international trade and government. He provides evidence that social trust drives economic development mainly by affecting the quality of governance and schooling.

⁷ Roth (2009) even doubts the impact of trust on growth. Using a panel research design instead of a pure cross-section strategy which is common in this strand of literature, Roth emphasizes that economic growth is negatively related to an increase in trust.

more extensive Welfare State generates higher level of social trust. On the other, a rather recent line of research (Algan, Cahuc and Sangnier, 2011; Bergh and Bjørnskov, 2011; Bjørnskov and Svendsen, 2012), emphasize causality from trust to welfare state design. A key assumption in this line of research is that aggregate social trust levels are highly stable over time because of hereditary codes of behavior.⁸

Following the notion of historically stable social trust, we can emphasize the channels through which it impacts on Welfare State size and type. Bergh and Bjørnskov (2011: 16) summarize three main mechanisms relating a *country's trust level* and Welfare State size: Firstly, social trust limits problems caused by free riders and, thus wasteful expenditures on redistributive policies are reduced. Secondly, it affects the trustworthiness of the government bureaucracy, and hence enables less-detailed regulations potentially resulting in a more efficient private sector. Thirdly, it reduces costs being related to cheating on taxes and seeking transfers to which people are not entitled. Bjørnskov and Svendsen (2012) mention three more features to being important for sustainability of welfare states that are affected by a higher level of social trust: political confidence, legal institutions protecting property rights, and a low level of bureaucratic corruption. Following this line of reasoning we postulate

Hypothesis 1A:

Higher social trust in general reduces inefficiencies associated with Welfare State expansion. People who believe that 'anonymous others' can be trusted therefore are supposed to express more positive attitudes toward the Welfare State. A lack of generalized trust could be the cause of a more skeptical attitude toward government interference and income equalization.

Trust effects are also stressed by Aghion, Algan, Cahuc and Shleifer (2010) who analyze a link via quality of government regulations. Contrary to Bergh and Bjørnskov they argue that individuals distrusting others are more likely to demand stronger and more intense regulation

⁸ Scandinavian countries had disposed of high social trust levels already before establishment of extensive welfare states in the 1950s and 1960s. This strand of literature applies various theories fully or partially supporting this crucial assumption. Tabellini (2008) introduced the "pro-noun drop" variable into trust research arguing that the rule that forbid dropping personal pronoun is positively related to respect for individual rights, hence, to trust as well. Bjørnskov (2007) provides evidence that there is a considerably higher level of trust in monarchies. Following this conclusion, Bergh and Bjørnskov (2011) argue that in contemporary monarchies, people with higher trust levels were able to find a way to democracy without violent, hence, without a complete abolishment of the old institutional arrangement. Moreover, Bergh and Bjørnskov (2011) offer another explanation: people in countries with cold winters were historically more dependent on the trade with not-known people, therefore, they had to trust to strangers more than people in countries with warmer climate. Uslaner (2008) and Algan, Cahuc and Sangnier (2011) provide empirical evidence supporting the assumption of historically stable levels of social trust, which is based on modes of immigrants' behaviour in host countries.

of economic activities in order to reduce an arising transactions uncertainty. People with higher generalized trust are in favor of less strict regulations and state control as they do not necessarily perceive a need to regulate. We can formulate the subsequent

Hypothesis 1B:

Social distrust produces a stronger demand for government intervention, thus, in general, for more extensive regulation as a whole. If mutual trust is lacking, people demand more government interference in the economy.

Note that Hypothesis 1B is only related to government interventions and regulations, and does not necessarily hold for redistribution issues.

How does perceived government efficiency affect the two different trust-Welfare State attitude relationships? In general we would expect that a better perceived governance quality will shift the trust-Welfare State attitude toward less skeptical views.

Hypothesis 1C:

If Hypothesis 1A is true, then social trust should lead to a more positive Welfare State attitude if government is perceived to be efficient than if it is perceived to be inefficient.

If Hypothesis 1B is true, social distrust should lead to an even higher demand of regulation if government is perceived to be efficient than if it is perceived to be inefficient.

2.3 Internal control and life control perception

While social trust is a belief that is directed toward other people in general, we now turn to a belief that is directed toward one's self. As a starting point it can be assumed that preferences for a less important role of government are to a large extent influenced by features and behavioral practices such as self-confidence, initiative, optimism, activeness and belief that one is able to control important matters in one's own life. To be more general, we identify a general way of thinking which is characterized by strong features of individualism. Individual beliefs and traits which form attitudes toward the appropriate role of government are strongly related to a notion of self-control. Recent research by Tabellini (2008, 2010), and Gorodnichenko and Roland (2011) has shown that dissemination of individualistic values and beliefs in a region or in a country is strongly associated with long-term economic growth; Hansen (2013) associates individual economic success with stronger individualistic values.

The main idea is based on the construct of general expectancies for internal versus external control of reinforcement from psychology, developed by Rotter already in 1966. Rotter summarizes that (1990: 489) “internal versus external control refers to the degree to which persons expect that a reinforcement or an outcome of their behavior is contingent on their own behavior or personal characteristics versus the degree to which persons expect that the reinforcement or outcome is a function of chance, luck, or fate, is under the control of powerful others, or is simply unpredictable.” People who perceive a high internal locus of control believe in their own ability to control their life course and to influence the world around them. They interpret their life course as being at their own disposition and that their personal choices are at the main cause of individual success or failure. On the other side of the spectrum, people who have a high external locus of control believe that control over events is largely outside their sphere of influence.

Rotter’s construct became widely popular in psychology and in political science or public health as well. However it remains still relatively neglected in economics.⁹ Some recent papers nevertheless refer to this concept. A high level of life control represents individualism or individualistic attitudes. In the long run, belief in oneself is formed by factors as culture, family structures, education system and personal experience.

Verme (2009), for instance, uses Rotter’s construct to explain how people evaluate freedom of choice. So called “internals” believe that they have control of their lives and that outcomes of their actions are consequences of own effort and skills, and thus appreciate more freedom of choice as a source of an increment in happiness.

An analogical concept could be identified by Bavetta and Peragine (2006) and particularly by Bavetta, Bottero and Navarra (2008). These authors label their approach ‘autonomy freedom’, and distinguish between objective and subjective freedom. While objective freedom is about having opportunities to choose from, subjective freedom is related to one’s autonomy or, in other words, to control over one’s own life. Thus their approach is in fact fully in accord with the locus of control conception.

An inverse in terms of terminology, yet parallel concept is ‘fatalism’, being used by D’Orlando, Ferrante and Ruiiu (2010) and Ruiiu (2012). D’Orlando, Ferrante and Ruiiu (2010) delimit main culturally-based beliefs determining the demand for labor market regulation. They point out

⁹ A somehow related concept is that of self-confidence which is “[i]n most societies ... widely regarded as a valuable individual asset.” Bénabou and Tirole (2002: 6).

the role fatalism, characterized by a weak confidence in the link between effort and economic success. Moreover, it can be linked (2010: 10) “with people’s propensity to believe that their destinies are ruled by an unseen power – Fate – rather than by their will.”

Individuals who have the impression that they have no control over their own lives, and the strong belief that individual success or failure does not depend on personal effort may be willing to demand more ex post-redistribution and are expected to have a stronger emphasis on government service provision and regulation.¹⁰ This is certainly in line with the notion of Alesina, Glaeser, and Sacerdote (2001) that people with a strong belief that the main cause of high income is pure luck are more favorable toward state redistribution. Tabellini (2008) and Williamson and Kerekes (2011) argue that people who feel that individual choices determine their economic success, i.e. people who think that they exercise personal influence on outcomes in life (self-determination), will show greater respect for other people’s property rights. As a consequence they will also prefer individual decision making to collectivism and government interventionism. In that respect, the perception of control over your own life course not only expresses the idea that personal effort is rewarding, but that lesser emphasis is placed on the role of the state as a coercive unit (Tabellini, 2008). Hence, we derive

Hypothesis 2A:

People who believe that they have control of their own life course and that personal life is managed autonomously on one’s own, have weaker preferences for redistributive government and coercive state intervention.

and, taking into account perceptions of government quality,

Hypothesis 2B:

People who have a strong ‘belief in oneself’ tend to be more skeptical about government activities if (individually) perceived government quality is weak.

¹⁰ A comprehensive summary of these originally psychological conceptions, including a discussion of economic implications, is provided by Bénabou and Tirole (2002). Bénabou and Tirole (2006) derive a formal model of collective beliefs and motivated cognitions that helps explain why people want to share the view that hard work and good deeds will ultimately bring a better life.

2.4, Religiousness, external control and beliefs in government

Religion has been an integral part of life and culture for centuries over all regions of the world. It has found its role in theories of economic development since Max Weber (1930) who introduced the advantages of protestant ethic (diligence, enterprise, austerity, asceticism etc.) for prosperity. While Weber's concept became frequently discussed in sociology, the topic of religion remained neglected in growth literature for many decades. A modern but already classical paper on the relationship between religion and economic development is Barro and McCleary (2003). The authors base on the idea that belief in God impacts individual traits such as thrift, work ethic and honesty, which in turn can foster economic growth. Using data from World Values Survey and International Social Survey Programme, they find empirical support for the thesis that economic growth responds positively to the extent of beliefs (outputs), and, on the other hand, negatively to church attendance (input).

The informal institution 'belief in oneself' or 'perception of life control' corresponds to the *internal locus of control* belief within Rotter's concept. Belief in oneself is associated with features as self-confidence, optimism, willpower and so on. To provide a general theory of the link between informal institutions and attitudes toward the Welfare State, one should however also aim to identify further general beliefs as being an alternative to self control beliefs. Based on the concept of a locus of control, we may delimit patterns of thinking and behavior being universal enough and fitting into the category of *external control* of reinforcement.

One implication of a predominantly external locus of control is that in case of a negative event people may simply hope that unfortunate external circumstances are going to change, sooner or later. Unlike the concept of fatalism, which is from our point of view a bit vague, we may think of alternative modes of thinking being possibly relevant for contemporary (developed) societies. A positive attitude toward the Welfare State captures to a certain sense the idea that government shall intervene if external circumstances are unfortunate. However, religion constitutes at least one alternative core belief. A strong belief in 'divine control' as a particular manifestation of a locus of external control can have a different association to Welfare State attitudes than simply 'Fate'. Both a belief in government and a belief in God ("religiousness") are based on the faith that outcomes of own activities are determined by external factors, at least to a certain degree. For that reason these two beliefs are relatively close to each other

compared with an individualistic belief in oneself. However, outcomes of actions might still be interpreted as the consequence of one's own effort and skill, even if one is a religious person.¹²

The relationship between the locus of control and religiousness has been subject of a number of psychological and sociological studies. Schieman (2008) observes that individuals who believe in divine control have significantly lower levels of personal control. Schieman also finds a stronger negative association between belief in divine control and personal control for individuals who report lower levels of subjective religiosity and attendance in religious services.

We may yet not simply conclude that people with a higher level of religiousness automatically have more intense Welfare State preferences similar to people with a stronger locus of external control. The reason is that religious people need not rely automatically on government as their 'fate' is possibly determined by a higher divine authority. In that respect the role of religion may be as one of an arrangement of social insurance. Clark and Lelkes (2005), for example, argue that religion serves as an insurance against unfavorable life events. In terms of mental feelings, religious people suffer less in case of unemployment, marital separation and so on. A similar argumentation can be found in Scheve and Stasavage (2006), who claim that individuals who are religious are predicted to prefer lower levels of social insurance than secular individuals. Religiousness in general, i.e. one that is not related to particular religious denomination, is associated with weaker income equalization attitudes, as religious belief and social spending can serve as two alternative mechanisms of insurance. Stegmueller, Scheepers, Rossteuscher and de Jong (2011) find that both Catholics and Protestants strongly oppose income redistribution by the government. A cleavage between religious and secular individuals is far more important than difference in attitudes between religious denominations, thus supporting a more general 'religion as substitute for the Welfare State'-idea.

On the one hand, religion can be understood as a substitute for a state provided social system and thus as a factor reducing the demand for Welfare State provisions. On the other, religious people who are not convinced about their abilities to control their lives entirely can appreciate government interventions as an additional compensatory mechanism in terms of inequalities among people. Along this line, Habel and Grant (2011) argue that people demand both 'more religion' and 'more government' during times of existential insecurity, although that does not necessarily mean that belief in God and belief in government are complementary. Moreover,

¹² We owe this point to our reviewer Martin Rode.

Habel and Grant show that both attitudes are driven by a set of similar factors. Berggren and Bjørnskov (2012) additionally remark that there appears to be a general “... deference to authority in religious circles [...], which suggest that the legal apparatus and the government more generally are seen as desirable, stabilizing features of an unsafe existence.”

Against the background of these contradictory factors, it is unclear which force is dominating:

Hypothesis 3A:

The impact of religious beliefs on Welfare State attitudes is a priori unclear. Whether religiousness is associated with a stronger support of Welfare State provisions, or whether religion is seen as a substitute for Welfare State provisions is ambiguous.

If religion and government are close substitutes, religious people are expected to demand more insurance from government, if government is perceived as relatively efficient. Provided that religiousness is associated with a stronger belief in authority, improved governance quality should also be associated with a higher demand for Welfare State provisions. If religion and government are, however, seen as two totally distinct features, then even a high quality government may not impact on Welfare State attitude of a religious person.

Hypothesis 3B:

Improved governance quality leads to a more positive attitude toward redistribution and Welfare State services. If religion and government are seen as two totally distinct mechanisms of insurance, then any improvement of government quality does not affect Welfare State attitudes of a religious person as compared to a non-religious person.

3 Data, measurement and model

3.1 Measuring Welfare State attitudes

A straightforward way to assess the view of voters-citizens on policy issues is to refer to opinion polls. Measuring political attitudes has been a subject of many public opinion surveys with different country and time coverage.¹³ The surveys frequently incorporate data on individual opinions about redistribution, government intervention and social security.¹⁴ As we aim to examine universal Welfare State support, we focus on more general preferences toward the appropriate role of government in view of the general public.

We employ four distinct survey questions from the World Values Survey and the European Values Study (WVS/EVS) to assess individual (and public) attitudes toward the Welfare State. WVS/EVS is currently the most comprehensive research project on human values. As a large-scale, cross-national and longitudinal research program, covering in total 102 countries/regions in survey waves that have been conducted between 1981 and 2010, WVS/EVS contains data on how respondents think about family, work, religion, politics, and society. The surveys thus provide insights into ideas, beliefs, preferences, attitudes, values, and opinions of citizens all over Europe, and in many other countries in the world. For the purpose of our analysis we restrict the sample to 37 OECD- and European Union members (see Appendix).

The questions chosen belong to a group of survey items reflecting preferences of respondents about society. All items cover slightly different but related aspects of the desired role of government. They have been polled for the first time in the 2nd WVS/EVS waves, starting in 1989. Since then, these questions have been raised regularly during the following waves, though not always in all countries. The basic attitude question is formulated as

"Now I'd like you to tell me your views on various issues. How would you place your views on this scale? 1 means you agree completely with the statement on the left; 10 means you agree

¹³ Among the most important survey studies are EuroBarometer (EB), European Social Survey (ESS), International Social Survey Programme (ISSP), and the World Values Survey/European Values Study (WVS/EVS).

¹⁴ Some questions have been repeatedly part of various survey waves, but occasionally, special reports provide more detailed information on attitudes toward specific policies, e.g. health care or pensions. For example, opinions on social welfare sub-systems have been part of various EB special issues. ESS Round 4, which had been conducted in 2008, includes a comprehensive module on welfare attitudes, comprising specific questions on particular social benefits, public health care, or old age related policies.

completely with the statement on the right; and if your views fall somewhere in between, you can choose any number in between."

The respective items include statements on (1) preferences for a reduction of income inequality, (2) state vs. private ownership of firms, (3) government vs. private responsibilities to provide for, and (4) beneficial versus harmful effects of competition.¹⁵ For ease of interpretation, we re-coded responses from the original 1 to 10 Likert-scale to a 'normalized' scale ranging from 0 to 1, such that preferences for stronger government involvement in the economy (more redistribution, state ownership, and government responsibility, less competition) receive higher values. The items shall now be described in more detail.

Income equalization (question eo35)

The respective survey item reads *"Incomes should be made more equal vs. We need larger income differences as incentives"*. Answers apparently reflect opinions about a potential redistributive role of the state. The item does not, however, include an assertion about preferred (political) means of reducing income differences, via higher social benefits, minimum wages, or other forms of state interventions.

A problem at hand is that the statement is not quite clear about a reference point. On the one hand, this item could be interpreted as assessment of desired change, i.e., whether income equality should be increased (or decreased) relative to the actual distribution. On the other hand, people consider the item as a question about their desired level of equality. There is no straightforward way to assess directly whether respondents answered to a 'change' or a 'level'-question. Indirectly one may conclude that in a responsive democracy it should be expected that over the longer run desired changes become smaller. Examining the data, that does not seem to be the case. Therefore we assume that respondents make statements about their preferred level of income inequality. However, it cannot be ruled out completely that some people refer to changes of current policy when answering the question.

State ownership (question eo36)

The item reads: *"Private ownership of business should be increased vs. Government ownership of business should be increased"*. Responses to this question are concerned with the role of government in the provision of goods and services, and the mechanism for the allocation of resources via state or markets in general. As such, it is an important statement about the

¹⁵ A question whether the state should give more freedom to firms or should control them more tightly has only been posed in EVS and only in the two recent waves. It has thus not been taken into account.

desired mode of production in an economy. In a broader sense, expressed opinions can serve as a measure of ideological preferences for capitalism vs. socialism (Bjørnskov and Paldam, 2012).

Clearly, framing of the state ownership question raises the problem of interpretation as 'desired level' vs. 'desired change', too. Implicit reference level may be the current situation in a country, as well as a hypothetical ideal state. We follow Bjørnskov and Paldam (2012) in their interpretation of the item as a level variable, meaning that the response shows a general positive or negative inclination toward state owned firms.

Government responsibility (question eo37)

The third question considered here also refers to a desired role of the state in the economy. It is concerned with the 'mix' of individual vs. government responsibility. The respective item reads: "*People should take more responsibility to provide for themselves vs. The government should take more responsibility to ensure that everyone is provided for*". The item may also be interpreted more narrowly as concerning attitudes toward an insurance role of governments to provide basic goods and requirements. In line with our argument for the two previous questions, we favor an interpretation of the statement as a desired level variable instead of a desired direction of change.

Competition attitude (question eo39)

The final item considered here concerns beneficial or harmful effects of competition as a mechanism of allocating scarce resources. The corresponding WVS/WVS statement is "*Competition is good. It stimulates people to work hard and develop new ideas vs. Competition is harmful. It brings out the worst in people*". An individual conviction that competition is harmful implicitly assumes that something, e.g. more intense government regulation, must be done against seemingly detrimental effects.

All items are eventually related to the question, how scarce resources in a society should be distributed (see also Jakobsen, 2011: 327). However, the income equalization question is the one which is concerned explicitly with ex post-distribution (results-oriented), while the three other items are associated with attitudes toward mechanisms and fields of government intervention (process-oriented).

Against this background we argue that *government responsibility*, *state ownership* and *competition attitude* assess similar attitudes for or against active government involvement in

the process of resource allocation, while *income equalization* is a measure of preferences for redistributive goals.¹⁶

A simple matrix of Spearman's rank order correlations (Table 1) at the individual level confirms for a total of 143,924 observations that

- all attitude measures are positively correlated at a 1%-level of significance, but
- the relationship between *income equalization* and the three other measures is weaker than the correlation among *government responsibility*, *state ownership* and *competition attitude*. This supports the idea of a difference between "ex post"-preferences and "process-oriented" preferences.

Table 1: Spearman rank order correlation of Welfare State preferences

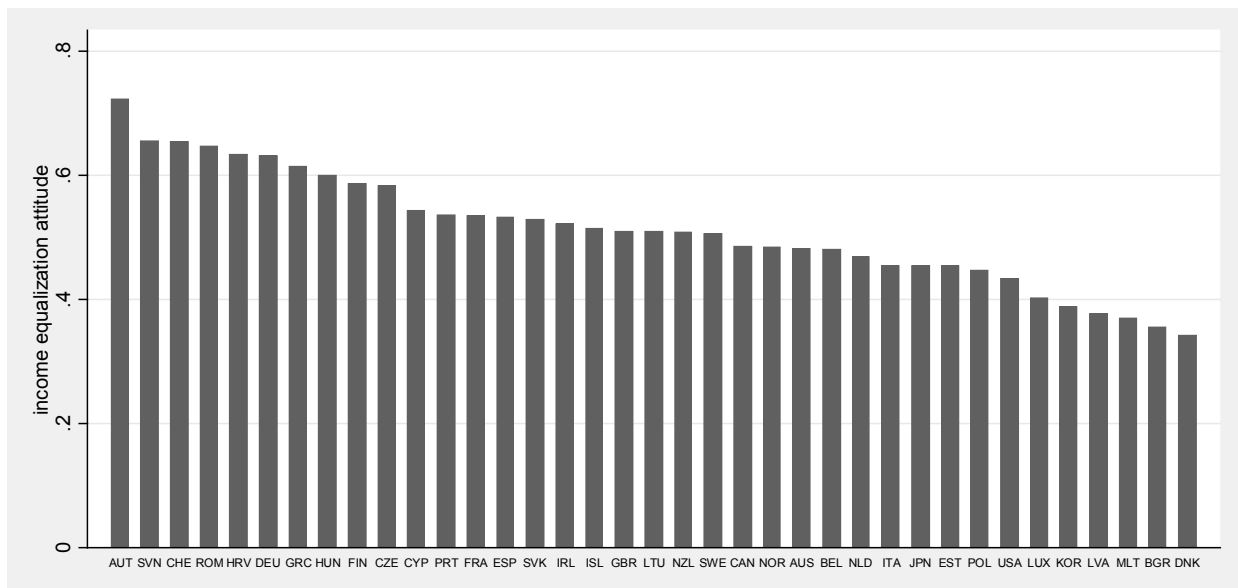
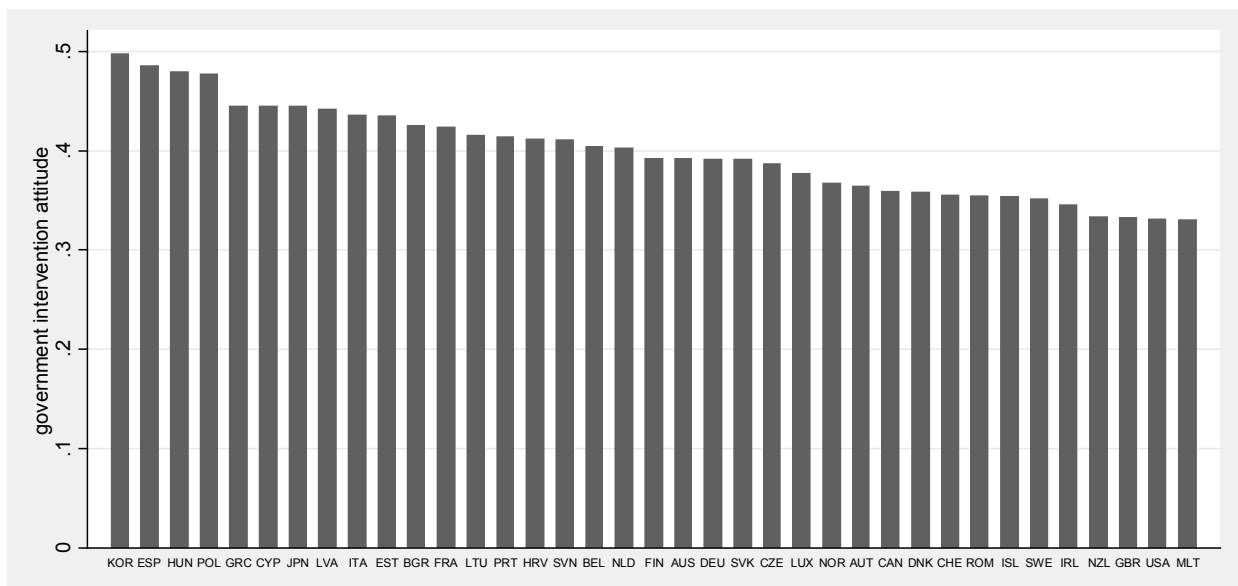
| | income equalization | state ownership | government responsibility | competition attitude |
|--------------------------------|------------------------|--------------------|------------------------------|-------------------------|
| income equalization | 1 | | | |
| state ownership | 0.1015* | 1 | | |
| government responsibility | 0.1248* | 0.2688* | 1 | |
| competition attitude | 0.1252* | 0.3217* | 0.1964* | 1 |
| <i>government intervention</i> | 0.1548* | 0.7605* | 0.6588* | 0.6714* |

Note: significant at * 1%-level. Correlation at individual level; 143924 observations in 37 countries

To make following analyses more tractable, we calculated the first principal component of *government responsibility*, *state ownership* and *competition attitude* measures to come up with a single measure for *government intervention*.¹⁷ We normalized the newly created variable on a 0-1 scale, higher values indicating stronger preferences for intervention. Spearman rank correlation of *government intervention* with its constituent variables and with *income equalization* is also displayed in Table 1. By construction, *government responsibility*, *state ownership* and *competition attitude* are strongly correlated with *government intervention*, (Spearman's rho between +0.65 and +0.76). On the contrary, *income equalization* and *government intervention* are only weakly but positively connected (Spearman's rho = +0.15).

¹⁶ Based on (much more) detailed data from the Welfare State module of the European Social Survey 2008, Roosma, Gelissen and van Oorschot (forthcoming) argue for a framework that is composed of seven different Welfare State dimensions. In their terminology, our approach covers the 'goals' and the 'range'-dimensions. Further dimensions cover outcomes and efficiency/effectiveness dimensions.

¹⁷ Calculated factor scores are: Government responsibility (0.44), State ownership (0.51) and Competition attitude (0.47).

Figure 1: Welfare State attitudes across countries in the 2000s**Panel A: Income equalization attitudes****Panel B: Government intervention attitudes**

Source: own calculations based on WVS/EVS

Welfare State attitudes differ substantially across the 37 countries in our sample. Figure 1, Panel A, illustrates country means of *income equalization* attitudes over the decade 2000-2009.¹⁸ Panel B displays country means of *government intervention* preferences over the same time period. For more detailed country information see Annex A1.

In the 2000s, the highest scores for *income equalization* are observed for Austria (0.72), the lowest scores for Denmark (0.34). The average score over all 37 countries is 0.51. Preferences for *government intervention* are highest in South Korea (0.50); the lowest score (0.33) is shared by New Zealand, the United States, United Kingdom and Malta. The overall mean score is 0.40. Hence, on average, attitudes toward government interference in the market economy are less pronounced than preferences for income redistribution.

We observe a substantial though not overwhelming stability of country averaged preferences over time. Decade means of income equalization attitudes between the 1990s and the 2000s correlate with $r = +0.69$; decade means of government intervention attitudes correlate with $r = +0.71$.

Simple t-tests do not reveal substantial differences across Welfare regimes or countries with different legal origins over the decade 2000-2009.¹⁹ With respect to *income equalization*, there is some weak evidence that eight countries belonging to a 'Continental' Welfare regime on average have slightly more intense preferences (0.56) than the 29 countries which belong to a different 'regime' (0.50).²⁰ Inter-group differences are somewhat more pronounced for *government intervention attitudes*. Group mean differences show that countries belonging to Liberal Welfare regimes (and those with a Common law or a Scandinavian legal origin) observe lower preferences for interventions than other country groups. Moreover, government intervention preferences are slightly more pronounced in countries with a former socialist system.

¹⁸ For countries participating in more than one survey during this period, we report the mean of the respective surveys. Country-year averages are calculated using geographic and gender weights.

¹⁹ Results are available on request.

²⁰ The eight 'Continental regime' countries are Austria, Belgium, France, Germany, Greece, Italy, Spain and Portugal. Australia, Canada, Ireland, Japan, New Zealand, the U.S., the U.K. and the Switzerland belong to the Liberal regime. Denmark, Sweden, Finland, Norway, Iceland, and the Netherlands form the Socialdemocratic regime. Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia form the group of CEEs. Cyprus, Luxembourg, Malta and Korea are 'unclassified'.

3.2 Measuring informal institutions

Preferences for government intervention and redistribution reflect views of on the desirability of certain policies and formal arrangements. These opinions are most probably determined by individual self-interest, but certainly also shaped by behavioral norms and beliefs of a respondent. In line with our hypotheses, we consider three core beliefs, for which data are provided by WVS/EVS.

Trust in people (question a165)

Research on the impact of informal institutions on development has largely focused on the effects of trust toward unspecified other people, hence ‘generalized’ or ‘social’ trust. The related survey question is formulated as *"Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?"* The two response categories are "most people can be trusted" and "can't be too careful". We re-coded the original coding such that an answer "most people can be trusted" gets assigned a value '1', and '0' otherwise. The variable *trust* can be interpreted as general expectation about the behavior of other people, or as an indicator of moral values and trustworthiness (Tabellini, 2008: 261).

Perception of life control (question a173)

A further aspect which is possibly of substantial importance for individual Welfare State attitudes is the degree to which respondents believe to have self-control with respect to their general life course. This is captured in the WVS/EVS by the 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."* We re-coded the original 1-10-Likert scale to a 0-1-scale with higher values indicating a stronger feeling of own *life control*.

Religiousness (question a006)

Finally, we also include a survey question whether religion is an important feature of one's life. The considered variable refers to the centrality of religion in the individual sphere. The related WVS/EVS-question is *"For each of the following aspects, indicate how important it is in your life. Would you say religion is: very important, rather important, not very important, unimportant."* We recoded the original 4 steps to a 0-1-scale, higher values indicating more importance assigned to religion.

Figure 2 illustrates cross-country variation of the three variables representing informal institutions over the 2000-2009 decade. While *trust* in people (Panel A) and *religiousness* (Panel C) show substantial cross-country variation, the perception of own *life control* (Panel B) appears to be more evenly distributed in the cross-section of 37 countries.

The most 'trusting societies' (Denmark, Norway, Sweden and Finland) all belong to the Nordic countries; the least trusting people (on average) are located in the South and in the East of Europe. Individual life control perception is especially high in Iceland and New Zealand, while it is relatively small in Italy, Bulgaria and Japan. Religiousness is (on average) high in Romania, Malta, Cyprus, Greece and in the USA; it is comparably low in the Czech Republic, Japan, Estonia, and Sweden. One characteristic feature of informal institutions is their persistence. Indeed, country averages of *trust* and *religiousness* are highly stable over decades. Simple correlation between decade averages of countries in the 1980s, 1990s and 2000s, of *trust* never falls below $r = +0.8$; in case of *religiousness* it is $r = +0.94$.²¹ The variable *life control* shows a little less stability (on average); the correlation between country means of the 1980s and the 2000s is yet still $r = +0.75$ and never falls below $r = +0.63$ (1980s v. 1990s).

Table 2 displays Spearman rank correlations of core beliefs at the individual level. We considered all observations in the sample of 37 countries, for which data on Welfare State attitudes are also available (132,565 observations).

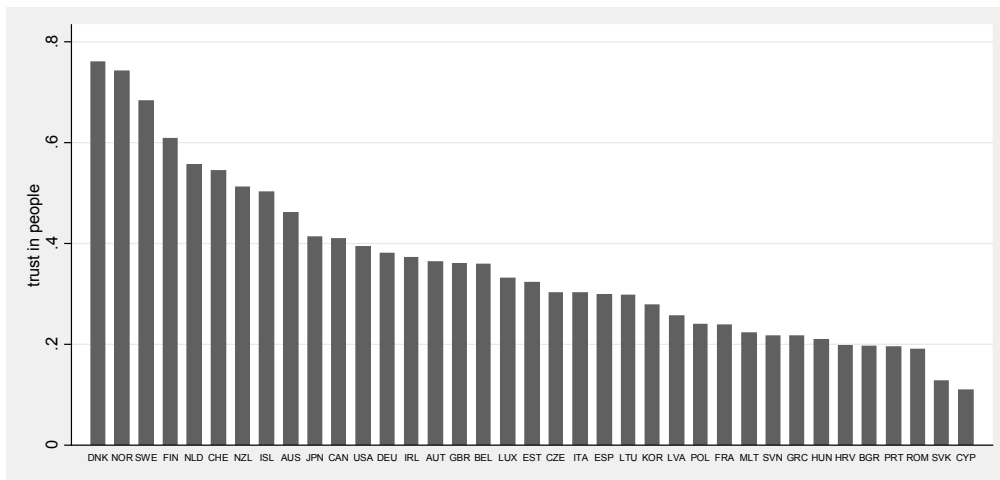
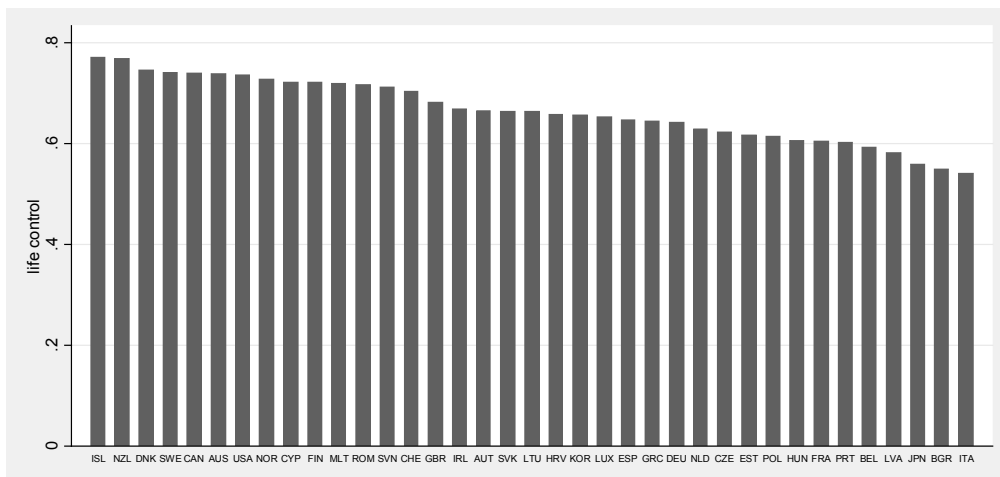
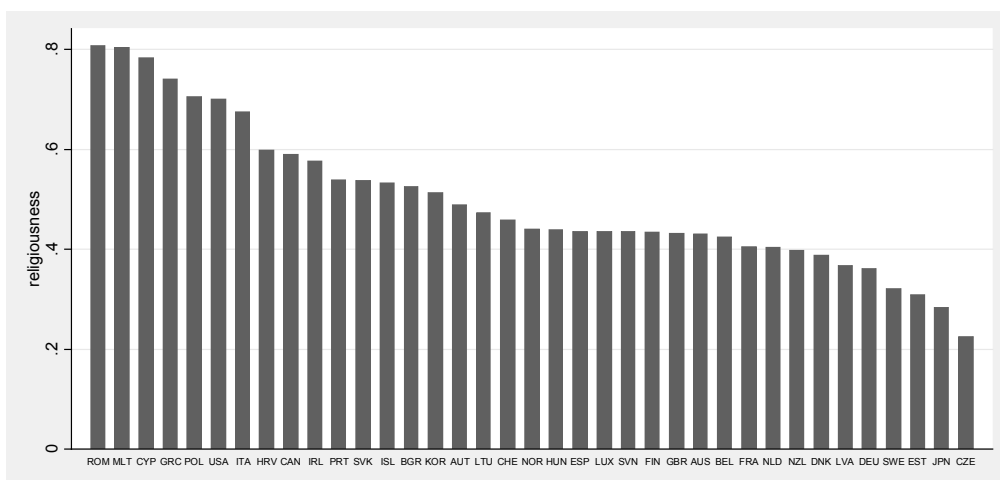
Table 2: Spearman rank order correlation of core beliefs (informal institutions)

| | trust in people | life control | religiousness |
|-----------------|-----------------|--------------|---------------|
| trust in people | 1 | | |
| life control | 0.1135* | 1 | |
| religiousness | -0.0404* | 0.0211* | 1 |

Note: significant at * 1%-level. Correlation at individual level; 132,565 observations in 37 countries

While life control and trust in people are reasonably strong and positively related ($\rho = +0.11$), religiousness is only very weakly related to the two other core beliefs. Due to the high number of observations, all correlations are nevertheless significant at a 1%-level.

²¹ Note that for *religiousness* we have data only for the 1990s and the 2000s. In the 1980s this survey question has only been posed in Switzerland and Poland.

Figure 2: Informal institutions across countries in the 2000s**Panel A: Trust in people****Panel B: Life control****Panel C: Religiousness**

Source: own calculations based on WVS/EVS

3.3 Measuring governance quality

Alternative approaches to assess governance quality use a large variety of different measures, ranging from democracy and corruption indices, indicators for speed and reliability of public administration, to measures for government effectiveness and regulatory quality. In the present paper, we make use of two different approaches to judge governance quality in a country: the first measure is based primarily on expert judgments and a second measure is based on individual respondents' perceptions of public sector governance quality.

Legal quality

According to Rothstein and Teorell (2008), governance quality is best described as "impartiality of institutions that exercise government authority". In that respect, the Fraser Institute's index of *legal quality*, a component of the comprehensive Economic Freedom of the World-index (EFW, Gwartney, Lawson, and Hall, 2012), is a good proxy. The compound legal quality-index provides measures for legal enforcement of contracts, property rights security, independence of the judiciary, business costs of crime, and impartiality of the court system, from different international data sources.²² We re-coded the original index 0-10 scale to a 0-1-scale, higher values reflecting a higher quality.²³

Confidence in administration (WVS/EVS questions eo69)

The *legal quality*-index is based on 'objective' expert judgments for average governance quality. Individual perceptions of public sector quality may nevertheless differ. As we use micro data in our empirical strategy, we prefer to employ individual perceptions of governance quality too.

An obvious candidate in that respect is survey data on confidence in public institutions. The WVS/EVS dataset contains a standard confidence question that reads "*I am going to name a*

²² These include the World Economic Forum's Global Competitiveness Report, International Country Risk Guide (PRS Group) and the World Bank's Doing Business data.

²³ The *legal quality*-index is also highly correlated with other popular measures of governance quality. For example, for 37 countries in our sample in 2010, the simple correlation between *legal quality* and World Bank's indices for Government Effectiveness (+0.88), Regulatory Quality (+0.83), or Rule of Law (+0.90), and Transparency International's Corruption Perception index (+0.92) never falls below 0.8. We opted for the *legal quality* index as World Bank data series are only available on from 1996, while Economic Freedom of the World data are available (in principle) for most countries since 1970. As legal quality data for 1991-94 and 1996-99 are not available, we imputed missing values by linear interpolation. Data from 2000-2010 are available on a yearly basis. An alternative measure employed (in robustness tests) is the International Country Risk Guide indicator of Quality of Government (*icrg*). *icrg* is also a compound index, constructed as the mean value of ICRG measures for "Corruption", "Law and Order" and "Bureaucratic Quality", standardized on a 0-1 scale, where higher scores indicate higher governance quality. The simple correlation between *legal quality* and *icrg* in 2010 is $r = +0.9$.

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?"

Among the listed institutions are civil service, government and parliament. We use confidence in civil service as a proxy for the individual assessment of administrative quality (*confadmin*).²⁴

We re-coded the variable to a 0-1 scale such that higher values indicate higher confidence.

Suitability of institutional confidence indicators to assess governance quality is controversially debated (e.g. Newton and Norris, 2000; Bouckaert and van de Walle, 2003; Christensen and Laegreid, 2005; van de Walle, 2007). Confidence in public institutions may depend to a certain degree on trust in other people. Empirical evidence for such an individual-level correlation between social trust and institutional trust is however ambiguous (Newton and Norris, 2000; Zmerli and Newton, 2008). Yet, confidence in institutions is clearly related to the *perceived* quality of the respective organization. Van Ryzin (2011) finds that fairness and equity of the administrative process has a stronger effect on trust of civil servants than outcomes.

Country means of confidence in public administration and expert's assessment of governance quality appear to coincide. Figure 3 illustrates decade 2000-2009 means of the EFW's *legal quality* measure and the respective decade averages of country means of *confadmin*. We observe a strong and significant positive relation between both indicators. Yet, expert and citizen judgment do not match perfectly. For Estonia, Latvia, Slovenia and Korea confidence in administration is (on average) much higher than expert's assessment of governance quality, for Germany and the Netherlands, expert assessment is more positive than confidence.

Confidence in major companies (WVS/EVS questions e069)

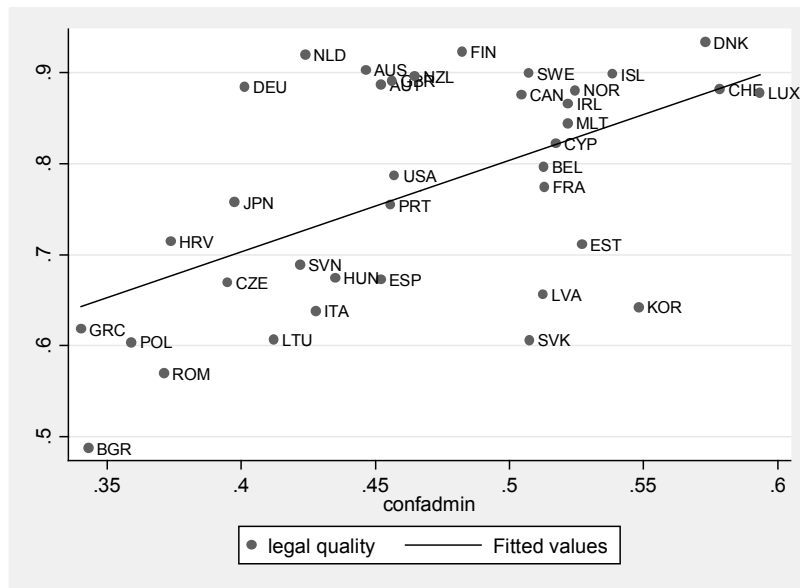
Strong confidence in the public administration does not necessarily go hand-in-hand with a more positive view on government activities. Confidence in different institutions is often correlated positively, and confidence in administration may be embedded in a larger 'generalized trust attitude'. As regards our research questions, *confidence in major companies* is of overwhelming importance. If people do not trust big companies we expect them to be more supportive of government intervention and Welfare State provisions.

Figure 4 displays the connection between confidence in administration and in major companies at the country level in the 2000s. The relationship is positive and strong, the simple

²⁴ In less than 3 percent of all cases we had to impute data for *confadmin*. Imputed data were obtained as predicted values from a regression of confidence in civil services on confidence in government and in parliament, country and year fixed effects. Our results do not change if we employ only non-imputed data, however.

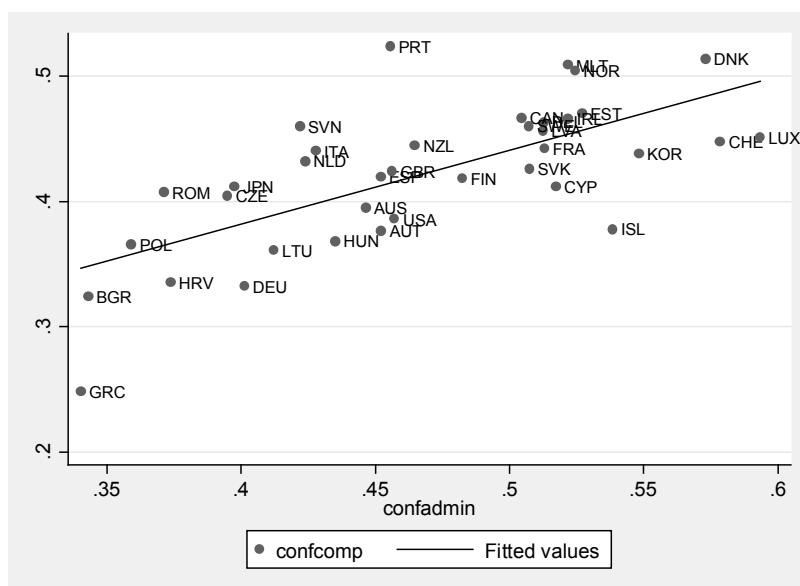
correlation amounts to $r = +0.69$. The simple correlation between *confidence in administration* and *confidence in major companies* is $r = +0.36$, which is quite strong for individual level data. Figure 4, for example shows that (on average) confidence in administration was quite low in Greece in the 2000s; but confidence in major companies was even smaller.

Figure 3: Relationship between legal quality and perceived confidence in administration



Source: Own calculations, based on Gwartney, Lawson and Hall (2012) and WVS/EVS

Figure 4: Relationship between perceived confidence in administration and in major companies



3.4 Estimation method and model

The aim of the paper is to explore the determinants of individual Welfare State preferences, or, to be more precise: attitudes toward government intervention and redistribution. Attitudes reflect personal assessments of the desirability of certain policies and/or formal institutional arrangements and are probably shaped by various factors, namely

- (1) *individual self-interest*, which is corresponding to the question whether a person is a factual, perceived or (probably in the future) expected beneficiary of provided services;
- (2) *governance quality*: perceived or actual efficiency and effectiveness of the Welfare State's formal institutions: support for government intervention and redistribution is expected to be less pronounced if provision of services and transfers is associated with economic waste and high cost;
- (3) *informal institutions*: cultural and social norms, conventions, moral values, codes of behavior, and beliefs about the way the world actually works, and – in a normative perspective – how it should work. These informal institutions are often at the center of explanations of stable attitudes and resistance to Welfare State reforms.

In this respect, our basic hypotheses postulate that besides factors representing narrow self-interest, attitudes also depend on personally internalized social norms (informal institutions), as well as on country-wide factors, including macro-economic environment and the efficiency of the Welfare State administration of a respective country. This makes our research question a typical case for a multilevel data analysis (Steenbergen and Jones, 2002).

In general, multilevel (contextual, hierarchical) models conjecture that individual behavior is a function of both individual-level ('level 1', 'micro level') and non-individual variables of a higher level ('level 2', 'macro level'), e.g. a region, a social group or a country, to which the individual belongs. Using data at the individual level increases the number of observations considerably, and increases substantially the precision of estimates as compared to simple cross-country analyses based on country-averaged values.

Formally, we model Welfare State attitudes (WS_{ij}) of individual i in country j depending on internalized informal institutions (I_i), additional individual covariates (X_i), country-wide

measures of governance quality Q_j and additional country-wide covariates Z_j . We then have an estimation equation²⁵

$$(1) \quad WS_{ij} = \beta_0 + \beta_1 I_i + \beta_2 X_i + \beta_3 Q_j + \beta_4 Z_j + \varepsilon_i.$$

The multi-level structure of the data generates problems for estimation, as level 1-observations are probably not independent within a country (level 2-units). Moulton (1990) demonstrates that in such a setting standard errors of all estimated parameters – especially for explanatory variables on the country-level – show a serious downward bias. A standard approach, then, is to estimate Ordinary Least Squares OLS, and correct estimated standard errors for clustering afterwards.

Similarly, or even more, important is the problem how to deal with heterogeneity in the cross-country dimension. Several methods to estimate such models are discussed in the pertinent empirical literature (e.g. Steenbergen and Jones, 2002; Primo, Jacobsmeier, and Milyo, 2007). To avoid the less satisfactory option of country-by-country regressions of (1), thus completely ignoring cross-country differences and contextual factors, we opted for a Least Squares Dummy Variable-model (LSDV) with indicator variables for all countries to get rid of unobserved heterogeneity. In a sample of $j = 1, 2, 3, \dots, k$ countries, equation (1) becomes

$$(1a) \quad WS_{ij} = \beta_0 + \beta_1 I_i + \beta_2 X_i + \beta_3 Q_j + \beta_4 Z_j + \alpha_1 D_1 + \alpha_2 D_2 + \alpha_3 D_3 + \dots + \alpha_{k-1} D_{k-1} + \varepsilon_i$$

Country fixed effects D_j account for unobservable characteristics that impact on support for Welfare State policies in a country and do not vary over time. They thus capture persistent institutional and socio-economic differences across countries that drive attitudes toward the Welfare State.

Contextual factors may also be modeled such that we take into account the possibility that the effect of informal institutions on Welfare State attitudes depends on the level of governance quality. We therefore estimate a cross-level interaction of the form

$$(2) \quad WS_{ij} = \beta_0 + \beta_1 I_i + \beta_2 X_i + \beta_3 Q_j + \beta_4 (I_i \times Q_j) + \beta_5 Z_j + \varepsilon_i.$$

The (marginal) impact of informal institution I_i on Welfare State attitude WS_{ij} is then given by

$$(3) \quad \frac{\partial WS_{ij}}{\partial I_i} = \beta_1 + \beta_4 Q_j,$$

²⁵ For ease of exposition the time-dimension in our data (different survey waves) shall be neglected here in the notation. In the estimation of this "pseudo-panel", we include survey wave dummies to address potential unobserved heterogeneity over time.

if we condition on level 2-measures of governance quality Q_j .

Perceived governance quality can also be measured at an individual level (see section 3.3). Compared to employing level 2-indicators of administrative quality Q_j this has the big advantage that from a theoretical perspective individual perceptions of government quality R_i should matter more for personal Welfare State attitudes than external expert's judgments. The relevant estimation equation, then, becomes

$$(2a) \quad WS_{ij} = \beta_0 + \beta_1 I_i + \beta_2 X_i + \beta_3 R_i + \beta_4 (I_i \times R_i) + \beta_5 Z_j + \varepsilon_{ij},$$

and the marginal effects of informal institutions are

$$(3a) \quad \frac{\partial WS_{ij}}{\partial I_i} = \beta_1 + \beta_4 R_i.$$

Individual-level covariates X_i are derived from the WVS/EVS, representing self-interest in government involvement.²⁶ We include the following control variables:

- A gender dummy (*female*), taking the value 1 if the respondent is female: We expect females to have a more positive attitude toward income equalization and government provision than males, as they can rationally expect to rely more often on special Welfare State services and benefits.
- Age of the respondent²⁷: We expect younger people to be more optimistic as regards government involvement and redistribution when we control for other individual interest variables.²⁸ Effects of age on attitudes toward redistribution are however ambiguous in earlier studies.
- Dependency on Welfare State provisions is probably higher for some groups of the population. From self-interest hypothesis we expect people who depend on provided services to have a more positive view of the Welfare State. To capture these effects, we include a dummy variable for being *retired* to control for self-interest of pensioners, and a dummy for *unemployed* individuals which probably rely to a certain extent on unemployment benefits and social transfers. While one can assume *retired* respondents to support income redistribution and equalization, it is not necessarily the case that

²⁶ Self-interest cannot always be separated from ideological convictions, see, inter alia, Pitlik et al. (2011).

²⁷ Age is divided by 10 only for better readable presentation of the results.

²⁸ This may be driven less by personal self-interest but captures the notion of a way of younger persons beliefs, which can be best described by a quote from former French Premier Georges Clemenceau (1841-1929): "Not to be a socialist at twenty is proof of want of heart; to be one at thirty is proof of want of head."

they are also in favor of government interventions. Unemployed people, however, may not only be supportive of more income equalization in the form of unemployment benefits, but they may also be in favor of more government action to fight and reduce unemployment. In addition, subjective *health status* of a respondent is also included, as a bad physical condition is usually associated with dependency on government services and benefits. The *health status* variable is coded on a 0-1 scale, higher values indicating a worse self-assessed personal health status.

- Dummies for relative *income* position based on self-reported household income into three income groups (high, middle, low). The middle income earners are the reference group. High income earners are expected to demand less government intervention as they can better provide for themselves; they also bear a higher share of the burden of redistribution toward lower income groups.
- Dummies for *educational* level achieved, classified into three groups (high, middle, low) with medium level as reference group. Highly educated people may probably support less involvement even if it is controlled for income level because they can expect to depend less on government support in general.

Macro control variables Z_j include the following:²⁹

- A country's *unemployment rate* from AMECO database. It can be expected that a higher unemployment rate is associated with both a more positive attitude toward income equalization and government intervention. One reason is that perceived individual risk of becoming unemployed will increase. A second reason is that higher unemployment may go hand-in-hand with (perceived) economic inequality, which is often seen as an economic rationale for government intervention and redistribution.
- Real *GDP per capita* (in purchasing power parities, log-form) from the Penn World Tables 7.1 (Heston, Summers, and Aten, 2012) is included to capture effects from development status. Often, redistribution and other forms of government involvement are seen as a 'superior' public good that are demanded more intensely at higher levels of economic development.

Summary statistics of all variables are in the Appendix. The results of our estimates will be presented in the following section 4.

²⁹ Provided that data have no time dimension, fixed country effects would be perfectly collinear with macro (level 2)-covariates. Our data yet do contain a time dimension, and country dummies therefore do not absorb the entire cross-country variation at a macro-level.

4 Results

4.1 The base model of governance quality and Welfare State attitudes

We start presentation of results in this section with a base model that is including all micro- and macro- covariates, and several measures of governance quality. This is to test *Hypothesis 0* of a positive relationship between perceived governance quality and Welfare State attitudes. In the base specifications measures for informal institutions are omitted.

Table 3 illustrates results of our baseline regressions of *income equalization* attitudes (columns 1-3) and *government intervention* attitudes (columns 4-6). Bold figures show unstandardized coefficients, and those in square brackets are standardized beta coefficients. The third line for each covariate displays p-values calculated from standard errors corrected for clustering.

Our individual control variables behave as expected from previous literature. Results are highly stable throughout all model specifications. Therefore, we only very briefly report the results here, and skip further discussions in the following tables.

Females have stronger preferences both for income equalization and for government intervention. This result is in line with numerous previous studies (e.g. Blekesaune and Quadagno, 2003; Alesina and Giuliano, 2009; Reeskens, Meulemans and van Oorschot, 2012).

While *age* is negatively related to equalization and intervention, being *retired* or *unemployed* has a positive association with both dependent variables. This is in line with expectations as people who depend on Welfare State provisions are more likely to support redistribution and government intervention.

Less educated respondents prefer more equalization and intervention, while higher educated people prefer less (reference group: middle education level). Respondents with a subjectively assessed *bad health* status are, as expected, more favorable toward income equalization and government intervention. People with a (self-reported) low *income* have a much more positive view of income equalization as well as government intervention than middle income and high income earners.

Table 3: Governance quality and Welfare State attitudes

| dep. variable | income equalization attitude | | | government intervention attitude | | |
|---------------------------|------------------------------|---------------|------------------|----------------------------------|---------------|------------------|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| <i>quality indicator:</i> | <i>no</i> | <i>legal</i> | <i>confadmin</i> | <i>no</i> | <i>legal</i> | <i>confadmin</i> |
| quality indicator | | 0.517 | 0.048 | | 0.097 | 0.041 |
| | | [0.195] | [0.039] | | [0.058] | [0.053] |
| | | 0.009 | 0.000 | | 0.325 | 0.000 |
| confcomp | | -0.105 | -0.120 | | -0.086 | -0.100 |
| | | [-0.086] | [-0.099] | | [-0.112] | [-0.130] |
| | | 0.000 | 0.000 | | 0.000 | 0.000 |
| female | 0.029 | 0.028 | 0.028 | 0.030 | 0.030 | 0.030 |
| | [0.047] | [0.046] | [0.045] | [0.078] | [0.078] | [0.077] |
| | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| age | -0.002 | -0.002 | -0.003 | -0.006 | -0.007 | -0.007 |
| | [-0.012] | [-0.012] | [-0.014] | [-0.056] | [-0.058] | [-0.061] |
| | 0.090 | 0.101 | 0.052 | 0.000 | 0.000 | 0.000 |
| retired | 0.018 | 0.018 | 0.018 | 0.009 | 0.010 | 0.009 |
| | [0.024] | [0.023] | [0.023] | [0.019] | [0.020] | [0.019] |
| | 0.000 | 0.000 | 0.000 | 0.004 | 0.002 | 0.003 |
| unemployed | 0.048 | 0.042 | 0.044 | 0.039 | 0.037 | 0.038 |
| | [0.036] | [0.032] | [0.033] | [0.046] | [0.044] | [0.045] |
| | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| bad health | 0.067 | 0.056 | 0.059 | 0.076 | 0.068 | 0.070 |
| | [0.050] | [0.041] | [0.043] | [0.089] | [0.079] | [0.081] |
| | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| income low | 0.023 | 0.023 | 0.023 | 0.019 | 0.019 | 0.019 |
| | [0.027] | [0.027] | [0.027] | [0.036] | [0.036] | [0.035] |
| | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| income high | -0.046 | -0.045 | -0.045 | -0.024 | -0.024 | -0.024 |
| | [-0.054] | [-0.054] | [-0.054] | [-0.045] | [-0.045] | [-0.045] |
| | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| education low | 0.017 | 0.015 | 0.015 | 0.024 | 0.024 | 0.024 |
| | [0.023] | [0.020] | [0.019] | [0.050] | [0.050] | [0.050] |
| | 0.038 | 0.046 | 0.059 | 0.000 | 0.000 | 0.000 |
| education high | -0.038 | -0.040 | -0.038 | -0.012 | -0.012 | -0.012 |
| | [-0.048] | [-0.051] | [-0.049] | [-0.024] | [-0.025] | [-0.025] |
| | 0.000 | 0.000 | 0.000 | 0.006 | 0.004 | 0.002 |
| unemployment | 1.077 | 0.829 | 1.104 | 0.289 | 0.182 | 0.243 |
| | [0.123] | [0.093] | [0.124] | [0.052] | [0.032] | [0.043] |
| | 0.040 | 0.151 | 0.052 | 0.095 | 0.270 | 0.170 |
| GDP per capita | 0.171 | 0.065 | 0.186 | -0.040 | -0.067 | -0.042 |
| | [0.278] | [0.102] | [0.292] | [-0.105] | [-0.169] | [-0.106] |
| | 0.091 | 0.638 | 0.098 | 0.327 | 0.133 | 0.294 |
| N | 126455 | 117311 | 116986 | 114757 | 107854 | 107616 |
| R-sq. (adj.) | 0.089 | 0.094 | 0.093 | 0.126 | 0.139 | 0.141 |
| country FE | yes | yes | yes | yes | yes | yes |
| wave FE | yes | yes | yes | yes | yes | yes |

Fixed effects OLS with standard errors adjusted for clustering at the country level. For each estimate, standardized beta-coefficients are reported in square brackets, followed by the cluster-robust p-value. Constant, country and survey wave effects not reported.

As regards the macroeconomic controls, our results show that a higher *unemployment rate* in a country is associated with a stronger support for income equalization, which is in line with previous studies (e.g. Blekesaune and Quadagno, 2003; Dallinger, 2010).³⁰ The effect is particularly strong: A one standard deviation increase of the unemployment rate is related to a 0.12 standard deviation increase of the *income equalization* attitude measure. The relationship of unemployment rates to *government intervention* attitudes is, however, not significant at conventional levels. *GDP per capita* (in logs) is positively related to income equalization attitudes at a 10%-confidence level. The association to intervention attitudes is yet not significant, and – if anything – it is negative.

We also checked for possible effects of country-wide income equality, as measured by the Gini-coefficient of after tax-and-transfer household incomes. There is no indication that this plays a role for Welfare State preferences in our estimates. However, this may be due to the fact that we included country fixed effects, and Gini-coefficients are a very slow moving macro-variable.

Including governance quality indicators in specifications (2)-(3), and (5)-(6) respectively, we always find a positive relationship of improved quality to income equalization and government intervention attitudes. The indicator *legal quality* refers to a macro measure of governance quality from the Economic Freedom of the World-data set (EFW). The coefficient of *legal quality* in the income equalization attitudes-estimates is +0.52 (2). The beta coefficient indicates that a one standard deviation increase of the respective index value increases income equalization attitudes by 0.2 standard deviations. The effect is strong and significant at a 1%-confidence level. In contrast, *legal quality* is not significantly related to government intervention attitudes (5). As *legal quality* is highly correlated with GDP per capita ($r \sim 0.8$), it is not surprising that average income per head loses statistical significance when *legal* is included. However, the quality index is more robustly related to Welfare State attitudes than per capita GDP.

In equations (3) and (6), individual confidence in administration (*confadmin*) replaces the expert judgment on *legal quality* as explanatory variable for Welfare State attitudes. In both regressions we find the expected results: A higher personal confidence in administration is related positively to attitudes toward income equalization and government intervention. The relationship is always significant at a 1%-level, and thus confirms the notion that people are

³⁰ Using data from the European Social Survey, Jaeger (2013) does not find a significant effect of cross-country differences in unemployment rates on the demand for income redistribution.

more willing to hand over competences to the state if the administration is assumed to be more efficient.

We now turn to confidence in major companies. The main idea behind including this variable is that reduced (increased) confidence in public administration only leads to negative (positive) Welfare State attitudes if confidence in private companies does not move in the same direction. A public administration that is perceived as highly inefficient does not necessarily mean that respondents disapprove of government interventions and income equalization if confidence in major private companies is even lower.

The negative and highly significant coefficient of personal confidence in major companies (*confcomp*) throughout all specifications illustrates that individual assessment of Welfare State policies for income equalization and government intervention attitudes not only depends on the perceived quality of the public administration but also on the opinion on major private companies. The effect is not only statistically significant but also economically strong: A one standard deviation decrease in the confidence in major companies increases support for income equalization by ca. 0.1 (equations 2 and 3), and support for government intervention by ca. 0.12 standard deviations (equations 5 and 6). This corroborates findings of Aghion et al. (2010) who report a lack of trust in companies positively related to preferences for a stricter regulation of the economy.

Summing up so far, our base regressions provide evidence that improved (objective or subjectively perceived) governance quality is positively related to income equalization and government intervention preferences. Confidence in administration and distrust in major private companies jointly contribute to a more positive view of Welfare State interventions. The effect of distrust in major companies appears to be even more important for Welfare State attitude formation.

4.2 Social trust, governance quality and Welfare State attitudes

In this section we examine the impact of generalized social trust and its interplay with governance quality on attitudes toward income equalization (Table 4) and government intervention (Table 5). The set of control variables included is identical to the base regressions

(Table 3). As estimates for micro- and macro-controls are particularly stable, we do not report the figures.³¹

As regards *income equalization* attitudes generalized *trust* shows the expected positive sign. People who have trust in other persons report a more positive view on income equalization (1), a result that is in line with *Hypothesis 1A*. Controlling for a country-level indicator for administrative quality (*legal quality* in equation 2) or individual confidence in administration (*confadmin*, 4) does not change results. Again, both governance quality measures show a positive relationship to income equalization attitudes. Economically, however, trust in people is only very weakly related to equalization preferences.

Adding interaction terms of the quality measure with social trust gives somehow inconclusive results. In equation (3), the macro-level indicator *legal* is interacted with *trust*; the interaction effect is yet insignificant (p-value = 0.524). Hence, the small positive effect of trust on income equalization attitudes does not depend on the observed level of legal quality.

However, we prefer not to use the expert assessment of governance quality but personal assessments instead. Interacting *trust* with the individual quality measure *confadmin* (equation 5) we find the expected positive sign of its coefficient: the higher personal confidence in administration, the stronger is the positive effect of increased trust on income equalization preferences, holding constant the level of confidence in major companies. With a p-value of $p = 0.126$ the interaction effect is close to conventional significance levels.

Panel A of Figure 5 displays marginal effects of social trust on income equalization preferences, conditional on the level of confidence in administration (*confadmin*). It shows that social trust has no significant effect on preferences if *confadmin* is smaller than 0.4, as the 10%-confidence level band includes the zero-line.³² If personal confidence in administration exceeds a score of 0.4, the impact of increased trust on equalization attitudes becomes statistically significant and positive. At the highest level of confidence in administration, a person that has trust in other people (on average) has a more positive view of income equalization of +0.017 compared to someone who does not trust other people.

³¹ Results are, of course, available on request.

³² Standard errors are calculated according to Brambor, Clark, and Golder (2006).

Table 4: Social trust, governance quality and attitudes toward income equalization

| dep. variable: | income equalization attitude | | | | | |
|---------------------------|------------------------------|---------------|---------------|------------------|------------------|----------------|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| <i>quality indicator:</i> | <i>no</i> | <i>legal</i> | <i>legal</i> | <i>confadmin</i> | <i>confadmin</i> | <i>confrel</i> |
| trust in people | 0.010 | 0.010 | 0.025 | 0.009 | 0.001 | -0.041 |
| | [0.016] | [0.015] | [0.198] | [0.014] | [0.001] | [-0.065] |
| | 0.011 | 0.011 | 0.329 | 0.023 | 0.931 | 0.004 |
| quality indicator | | 0.519 | 0.526 | 0.046 | 0.040 | 0.134 |
| | | [0.195] | [0.039] | [0.037] | [0.033] | [0.062] |
| | | 0.008 | 0.008 | 0.000 | 0.000 | 0.000 |
| trust X quality | | | -0.020 | | 0.017 | 0.094 |
| | | | [-0.025] | | [0.022] | [0.080] |
| | | | 0.524 | | 0.126 | 0.000 |
| confcomp | -0.101 | -0.104 | -0.104 | -0.119 | -0.118 | |
| | [-0.083] | [-0.085] | [-0.083] | [-0.098] | [-0.098] | |
| | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | |
| N | 113618 | 112675 | 112675 | 112377 | 112377 | 112377 |
| R-sq. (adj.) | 0.096 | 0.094 | 0.094 | 0.092 | 0.092 | 0.091 |

Fixed effects OLS with standard errors adjusted for clustering at the country level. For each estimate, standardized beta-coefficients are reported in square brackets, followed by the cluster-robust p-value. Individual control variables: Gender, income level, education level, health status, employment status not reported. Constant, country and survey wave effects not reported.

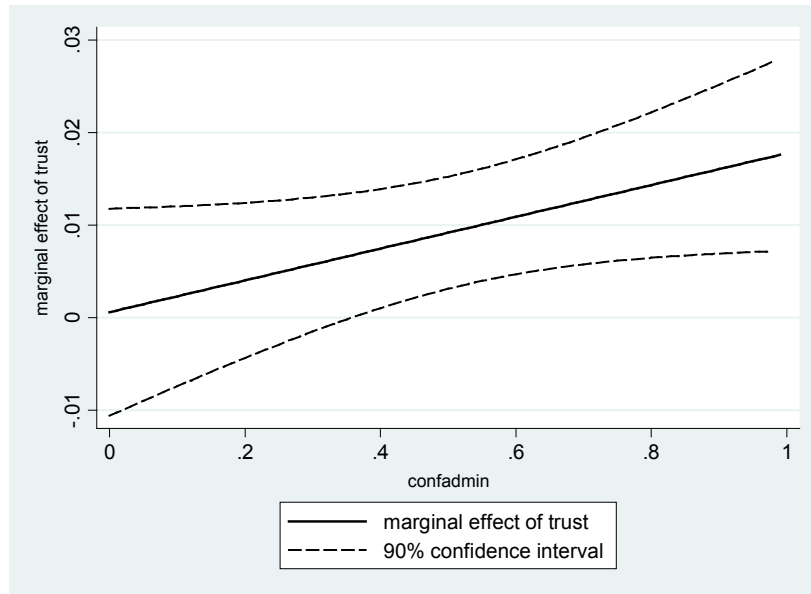
Table 5: Social trust, governance quality and attitudes toward government intervention

| dep. variable: | government intervention attitude | | | | | |
|---------------------------|----------------------------------|---------------|---------------|------------------|------------------|----------------|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| <i>quality indicator:</i> | <i>no</i> | <i>legal</i> | <i>legal</i> | <i>confadmin</i> | <i>confadmin</i> | <i>confrel</i> |
| trust in people | 0.000 | 0.000 | -0.035 | -0.001 | -0.007 | -0.045 |
| | [0.000] | [0.000] | [-0.086] | [-0.003] | [-0.018] | [-0.113] |
| | 0.950 | 0.995 | 0.092 | 0.624 | 0.101 | 0.000 |
| quality indicator | | 0.087 | 0.071 | 0.040 | 0.036 | 0.111 |
| | | [0.052] | [0.042] | [0.052] | [0.046] | [0.082] |
| | | 0.373 | 0.478 | 0.000 | 0.000 | 0.000 |
| trust X quality | | | 0.044 | | 0.013 | 0.084 |
| | | | [0.090] | | [0.019] | [0.114] |
| | | | 0.083 | | 0.062 | 0.000 |
| confcomp | -0.084 | -0.085 | -0.085 | -0.099 | -0.099 | |
| | [-0.109] | [-0.111] | [-0.111] | [-0.129] | [-0.128] | |
| | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | |
| N | 104715 | 103824 | 103824 | 103609 | 103609 | 103609 |
| R-sq. (adj.) | 0.137 | 0.138 | 0.139 | 0.140 | 0.140 | 0.138 |

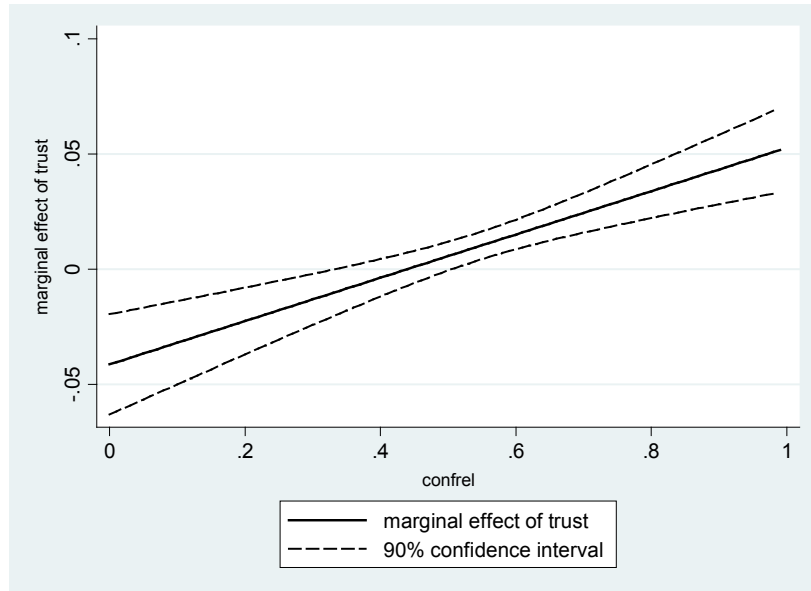
Fixed effects OLS with standard errors adjusted for clustering at the country level. For each estimate, standardized beta-coefficients are reported in square brackets, followed by the cluster-robust p-value. Individual control variables: Gender, income level, education level, health status, employment status not reported. Constant, country and survey wave effects not reported.

Figure 5: Marginal impact of social trust on income equalization attitude conditional on absolute (panel A) and relative confidence in administration (panel B)

Panel A (equation 5)



Panel B (equation 6)



In this exercise, confidence in companies was being held constant. Taking into account the 'relative' nature of the assessment of public administration versus private companies, we created a variable *confrel* which measures (at an individual level) the difference between confidence in administration and confidence in major companies ("relative confidence"). *confrel* is normalized to a 0-1-scale; values higher than 0.5 imply a more positive view of the public administration, whereas a score between 0 and 0.5 indicates a relatively more positive view of private companies. Hence, a variation of *confrel* shows combinations of confidence in administration and in major companies.

Equation (6) in Table 4 and Panel B of Figure 5 illustrate that such a 'relative' confidence in administration and companies clearly matters for the impact of generalized social trust. At very low levels of *confrel*, social trust is negatively related to income equalization attitudes. If the level of *confrel* exceeds a value of approximately +0.5, i.e., respondents have a higher confidence in public administration than in major companies, increased generalized trust also leads to a more favorable view of income equalization.

These results are clearly in line with our Hypothesis that a higher perceived quality of the public administration is crucial for the positive income equalization attitudes of respondents who trust other people. Provided that these 'generally trusting respondents' however also hold the belief that the civil service cannot be trusted, or that they have a substantially higher confidence in major companies, they report less support for income equalization.

In Table 5 we examine the relationship between social *trust* and *government intervention* attitudes. In estimates without interaction effects (columns (1), (2) and (4)) we find no association between trust in people and preferences for government intervention. Higher confidence in major companies is always related negatively to intervention attitudes. Governance quality, when it is measured with the macro-level indicator *legal*, also seems unrelated to intervention preferences. If quality is measured by confidence in administration (*confadmin*), the effect is highly significant and positive.

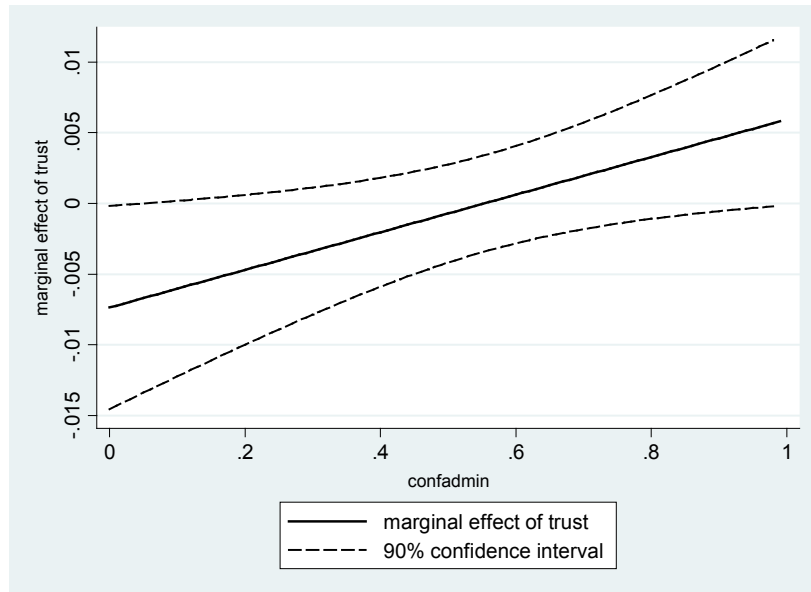
Results change slightly when we take into account the effects of trust conditional on governance quality (columns 3, 5 and 6). The interaction effects are positive and statistically significant at a 10%-level. That means that increased trust is positively associated with preferences for government interventions only at reasonably high levels of governance quality. A strong effect of the interaction of trust with the measure of relative confidence in administration (*confrel*) indicates that indeed again the perception of both government and private companies matters.

Figure 6 (Panels A and B) displays marginal effects of social trust, depending on the absolute and relative confidence in administration. Both graphs show the positive conditional impact of higher governance quality on the trust-interventionism relationship. However, Panel A also indicates that the trust-intervention attitudes association is never significant at a 10%-significance level when quality is measured by absolute confidence in administration (*confadmin*). Employing the relative confidence indicator *confrel*, Panel B shows that higher social trust is related to a more positive view of government intervention, provided that the government is perceived as relatively more confidential than major companies.

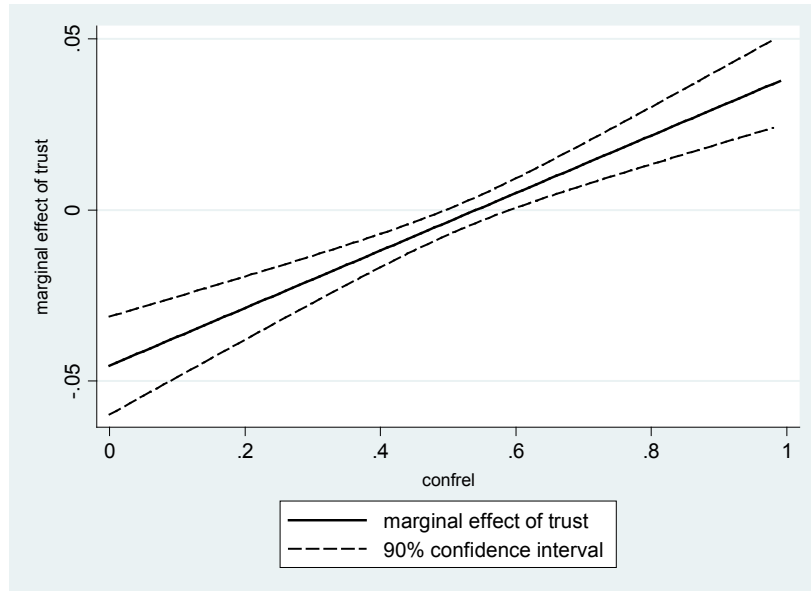
While 'distrusting companies' appears to have a strong positive effect on the individual preference for interventions, the very small coefficients of our trust variable indicate that social trust does not have a substantial economic impact on government intervention attitudes. At least in our sample of developed European Union and OECD-countries, the results of our empirical analysis are at odds with Aghion et al. (2010), who report that general distrust is related to an increased demand for government regulations.

Figure 6: Marginal impact of social trust on government intervention attitude conditional on absolute (panel A) and relative confidence in administration (panel B)

Panel A (equation 5)



Panel B (equation 6)



4.3 Life control, governance quality and Welfare State attitudes

A further informal institution that is of special interest here is the belief of having control over your own life course, or, on the opposite, a feeling of fatalism. The impression of having substantial autonomy in making important decisions concerning one's own life captures the extent of individual subjective freedom (Bavetta and Guala, 2003).

The findings of our assessment of the relationship between life control and income equalization attitudes are reported in Table 6. Throughout all model specifications, *life control* is negatively related to preferences for income equalization at a 1%-level of significance. In the baseline estimates without interaction effects the standardized beta coefficients are between -0.072 and -0.078, which is five times the value of the social trust beta coefficients from Table 4. This resembles results from a recent paper by Bavetta and Navarra (2012: 48) who claim that "... individuals enjoying high levels of free choice and control over life outcomes ask for lower levels of income transfers."

Are the effects of life control perception dependent on the quality of governance structures? In equation (3) we employ an interaction term with the EFW-measure *legal quality*. As expected, the interaction shows a positive coefficient, i.e., an improved governance quality reduces the negative impact of individual life control perception on income equalization attitudes. The effect is close to significance at a 10%-level. Again, individual measures of perceived governance quality perform similarly. While confidence in administration (*confadmin*) as 'stand alone' is positively related to income equalization preferences (equation 4), the interaction with life control is not significant at conventional levels (equation 5). Confidence in administration relative to major companies (*confrel*) once more shows a stronger effect (see also Figure 7). As the confidence in companies-variable (*confcomp*) shows a highly significant negative relation to income equalization preferences in all specifications, we can conclude that the interaction effect is mainly driven by this variable.

Table 6: Life control, governance quality and attitudes toward income equalization

| dep. variable: | income equalization attitude | | | | | |
|-------------------------------|------------------------------|---------------|---------------|------------------|------------------|----------------|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| <i>quality indicator:</i> | <i>no</i> | <i>legal</i> | <i>legal</i> | <i>confadmin</i> | <i>confadmin</i> | <i>confrel</i> |
| life control | -0.092 | -0.093 | -0.190 | -0.093 | -0.100 | -0.136 |
| | [-0.071] | [-0.072] | [-0.147] | [-0.072] | [-0.078] | [-0.105] |
| | 0.000 | 0.000 | 0.003 | 0.000 | 0.000 | 0.000 |
| quality indicator | | 0.555 | 0.468 | 0.050 | 0.039 | 0.118 |
| | | [0.206] | [0.174] | [0.041] | [0.032] | [0.055] |
| | | 0.005 | 0.014 | 0.000 | 0.004 | 0.000 |
| life control X quality | | | 0.127 | | 0.017 | 0.077 |
| | | | [0.086] | | [0.011] | [0.039] |
| | | | 0.107 | | 0.389 | 0.036 |
| confcomp | -0.097 | -0.100 | -0.100 | -0.116 | -0.116 | |
| | [-0.080] | [-0.082] | [-0.083] | [-0.096] | [-0.096] | |
| | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | |
| N | 115349 | 114428 | 114428 | 114121 | 114121 | 114121 |
| R-sq. (adj.) | 0.100 | 0.098 | 0.098 | 0.097 | 0.097 | 0.095 |

Fixed effects OLS with standard errors adjusted for clustering at the country level. For each estimate, standardized beta-coefficients are reported in square brackets, followed by the cluster-robust p-value. Individual control variables: Gender, income level, education level, health status, employment status (not reported). Macro control variables: unemployment rate, GDP per capita (not reported). Constant, country and survey wave effects not reported.

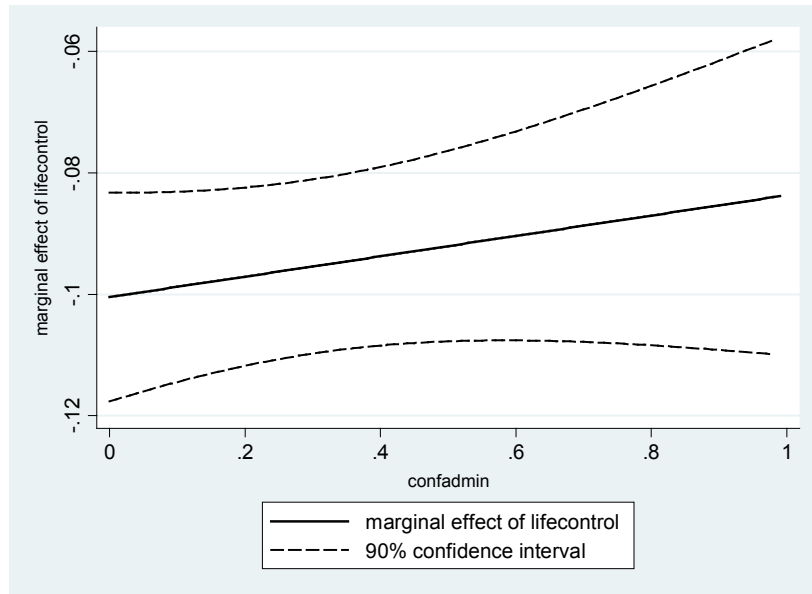
Table 7: Life control, governance quality and attitudes toward government intervention

| dep. variable: | government intervention attitude | | | | | |
|-------------------------------|----------------------------------|---------------|---------------|------------------|------------------|----------------|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| <i>quality indicator:</i> | <i>no</i> | <i>legal</i> | <i>legal</i> | <i>confadmin</i> | <i>confadmin</i> | <i>confrel</i> |
| life control | -0.071 | -0.072 | -0.108 | -0.072 | -0.092 | -0.112 |
| | [-0.087] | [-0.087] | [-0.131] | [-0.088] | [-0.112] | [-0.136] |
| | 0.000 | 0.000 | 0.029 | 0.000 | 0.000 | 0.000 |
| quality indicator | | 0.121 | 0.088 | 0.043 | 0.014 | 0.095 |
| | | [0.071] | [0.052] | [0.056] | [0.018] | [0.069] |
| | | 0.222 | 0.442 | 0.000 | 0.188 | 0.000 |
| life control X quality | | | 0.047 | | 0.045 | 0.072 |
| | | | [0.050] | | [0.048] | [0.058] |
| | | | 0.442 | | 0.000 | 0.009 |
| confcomp | -0.081 | -0.083 | -0.083 | -0.097 | -0.097 | |
| | [-0.106] | [-0.108] | [-0.108] | [-0.127] | [-0.127] | |
| | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | |
| N | 106329 | 105454 | 105454 | 105226 | 105226 | 105226 |
| R-sq. (adj.) | 0.143 | 0.144 | 0.144 | 0.146 | 0.146 | 0.143 |

Fixed effects OLS with standard errors adjusted for clustering at the country level. For each estimate, standardized beta-coefficients are reported in square brackets, followed by the cluster-robust p-value. Individual control variables: Gender, income level, education level, health status, employment status (not reported). Macro control variables: unemployment rate, GDP per capita (not reported). Constant, country and survey wave effects not reported.

Figure 7: Marginal impact of life control perception on income equalization attitude conditional on absolute (panel A) and relative confidence in administration (panel B)

Panel A (equation 5)



Panel B (equation 6)

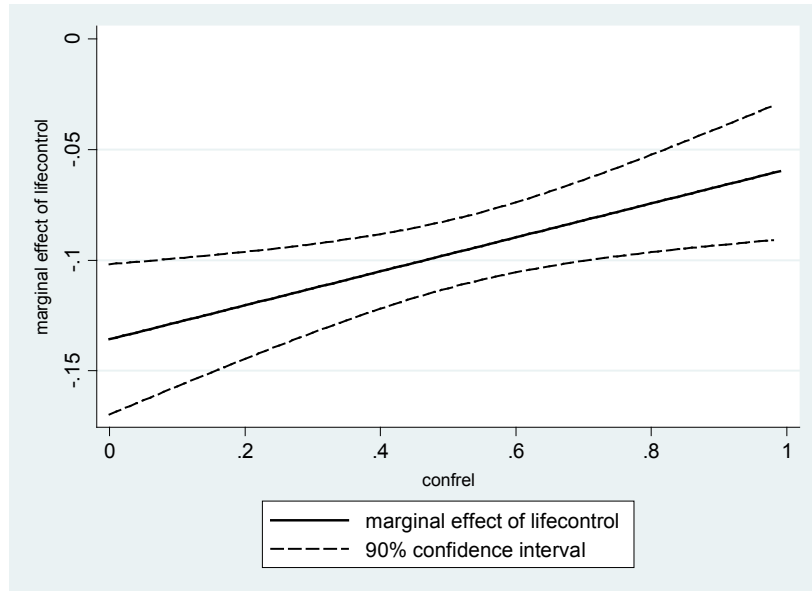
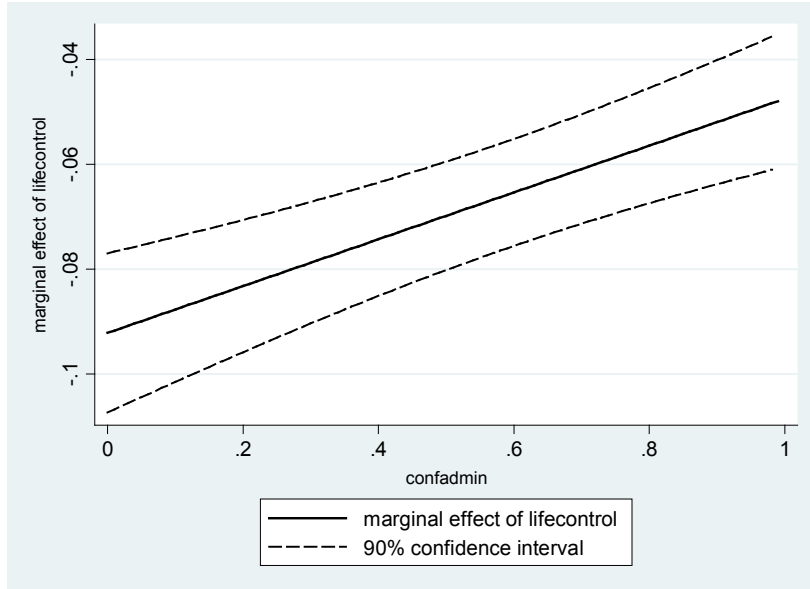


Table 7 depicts the results for the government intervention attitude estimations. The baseline effect of the *life control*-variable shows again a highly significant and strongly negative relationship to Welfare State preferences. Significance never drops below a 5%-level. Governance quality measures have the expected positive signs, but only the individual measures *confadmin* and *confrel* are statistically different from zero. Also, interaction terms for individual measures suggest a strong conditional effect of governance quality: perceived life control is always negatively related to government intervention attitudes, but a better perceived governance quality appears to mitigate this negative impact, although it never disappears completely (see also Figure 8). According to equation (5), for example, the marginal effect of an increase in *life control* perception on government intervention attitude is -0.092 if confidence in administration is totally absent, while the effect is still -0.047 if the respondent has highest confidence in administration.

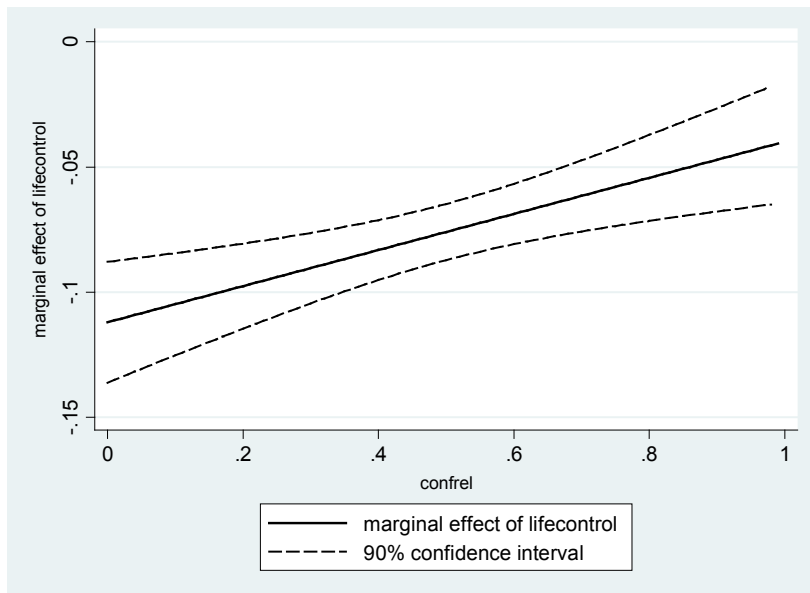
Summing up in a nutshell, belief in control over one's own life is a powerful predictor of individual Welfare State attitudes. People who believe to control their own life course a significantly less supportive of income equalization and government intervention than people who have a strong feeling that they have no control over their lives. The negative impact of life control on income equalization and government intervention attitudes are mitigated if the government is perceived to be (relatively) more efficient.

Figure 8: Marginal impact of life control perception on government intervention attitude conditional on absolute (panel A) and relative confidence in administration (panel B)

Panel A (equation 5)



Panel B (equation 6)



4.4 Religiousness, governance quality and Welfare State attitudes

According to the substitution hypothesis, being a religious person may reduce individual preferences for income redistribution, as religion can possibly serve as an alternative for government insurance schemes (Scheve and Stasavage, 2006). In terms of locus of control-theory we can, however, interpret religiousness also as one (possible) characteristic of external control. Hence, from this point of view one may expect religious people to have a more positive view on income equalization and government intervention.

Estimation results shown in Table 8 only partly confirm this idea. People who claim to find religion an important factor in their own lives also appear to have a reduced inclination to income equalization, as 'stand alone estimates' without interaction effects in equations (1), (2) and (4) show. The effects are, however, not significant at conventional levels, or only very weakly related to income equalization attitudes (4). On the other hand, our measures of governance quality are constantly positive at a 1%-level of significance (equations 2-6).

Interaction terms of *religious* with *legal quality* (and *confadmin*) are not different from zero in a statistical sense (p-values of 0.51 and 0.3, respectively). Hence we observe no effect of religiousness conditional on governance quality. This is certainly in line with the idea that religiousness is a kind of 'absolute' belief.

Interestingly in equation (6), employing *confrel* as quality measure, we obtain a negative interaction effect, see also Panel B in Figure 9. While increased religiousness has a positive relationship to income equalization attitudes if relative confidence in administration is low, the association turns negative when relative confidence is high. Certainly, these effects are driven almost exclusively by highly significant effects of personal confidence in major companies on attitudes toward income equalization. Only religious people with (relatively) little confidence in private companies appear to view religion as a substitute for social insurance by the government.

Turning to the interrelation between religiousness and government intervention attitudes (table 9 and figure 10), our estimates indicate that there is no significant effect. When we include an interaction term with *confrel*, we find a similarly puzzling relationship as for income equalization attitudes. Religiousness has a positive association with government intervention attitudes if relative confidence in administration is low, the interrelation turns negative when relative confidence is high: Again the effect appears to be driven by confidence in major companies and less by confidence in administration.

We repeated the estimates, using the WVS/EVS survey variable “Belief in God” instead of religiousness; the sample size slightly shrinks but results are essentially confirmed. The results also do not depend on the assumed cardinality of the religiousness variable. We re-estimated the whole set of regressions, replacing *religiousness* by a dummy variable which was assigned a '1' if the respondent claimed that religion is very important for her/him, and a zero otherwise.³³ We found that the religious-dummy is not significantly related to both income equalization and government intervention attitudes. Adding interaction terms with *confrel*, we find again that very religious people are more favorable toward income equalization and government intervention when they have only little confidence in a superiority of the public administration as compared to companies. Again, this result is mainly driven by strong effects of confidence in major companies.

In general it appears that the relationship between religiousness and attitudes toward Welfare State provisions is much more complex and possibly also driven by many other intervening variables.³⁴ This is nothing unusual. For example, employing a different measure of religiosity, the WVS/EVS question whether respondent were brought up religiously at home, Guiso, Sapienza, and Zingales (2003) find that the "correlation between religiosity and attitudes toward the market is [...] complex. People raised religiously are less willing to trade off equality for incentives and are less in favor of private property. The correlation changes sign, however, when it comes to people attending religious services on a more regular basis: they are more willing to trade off equality for incentives and in particular, they favor more private ownership."

³³ Results not reported but are available from the authors on request.

³⁴ In addition, we should remind rather vast differences among countries across the world, and in particular, the difference between the USA, where religious people typically demand less government interventions (Republicans), and Europe where voters of Christians parties are usual much less right-oriented especially in case of fiscal and redistributive policies. Chen and Lind (2007) provide a hopeful explanation of this difference. According to them, there are countries which sustain high religiosity, high church-state separation and a reduced Welfare State (e.g. US), and countries with low religiosity, low church-state separation and an expanded Welfare State (e.g. Europe). Chen and Lind assert that the separation between state and church is key (2007: 2): “welfare is not competitive against religious groups when government funding can be distributed to religious groups.” Based on the concept of external control of reinforcement and Chen and Lind (2007), we may want to test a further hypothesis: “In Europe, with a relatively low level of church-state separation, we expect that religious people demand relatively more welfare state.” We shall leave that to a next paper.

Table 8: Religiousness, governance quality and attitudes toward income equalization

| dep. variable: | income equalization attitude | | | | | |
|----------------------------|------------------------------|---------------|---------------|---------------|---------------|---------------|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| quality indicator: | no | legal | legal | confadmin | confadmin | confrel |
| religious | -0.008 | -0.006 | 0.017 | -0.010 | -0.018 | 0.066 |
| | [-0.009] | [-0.007] | [-0.020] | [-0.011] | [-0.021] | [0.076] |
| | 0.177 | 0.250 | 0.643 | 0.087 | 0.074 | 0.000 |
| quality indicator | | 0.515 | 0.533 | 0.048 | 0.039 | 0.247 |
| | | [0.193] | [0.200] | [0.039] | [0.032] | [0.114] |
| | | 0.009 | 0.008 | 0.000 | 0.002 | 0.000 |
| religious X quality | | | -0.030 | | 0.018 | -0.157 |
| | | | [-0.027] | | [0.014] | [-0.103] |
| | | | 0.509 | | 0.293 | 0.000 |
| confcomp | -0.101 | -0.104 | -0.104 | -0.119 | -0.119 | |
| | [-0.083] | [-0.085] | [-0.085] | [-0.098] | [-0.099] | |
| | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | |
| N | 116643 | 115746 | 115746 | 115436 | 115436 | 115436 |
| R-sq. (adj.) | 0.096 | 0.094 | 0.094 | 0.093 | 0.093 | 0.092 |

Fixed effects OLS with standard errors adjusted for clustering at the country level. For each estimate, standardized beta-coefficients are reported in square brackets, followed by the cluster-robust p-value. Individual control variables: Gender, income level, education level, health status, employment status (not reported). Macro control variables: unemployment rate, GDP per capita (not reported). Constant, country and survey wave effects not reported.

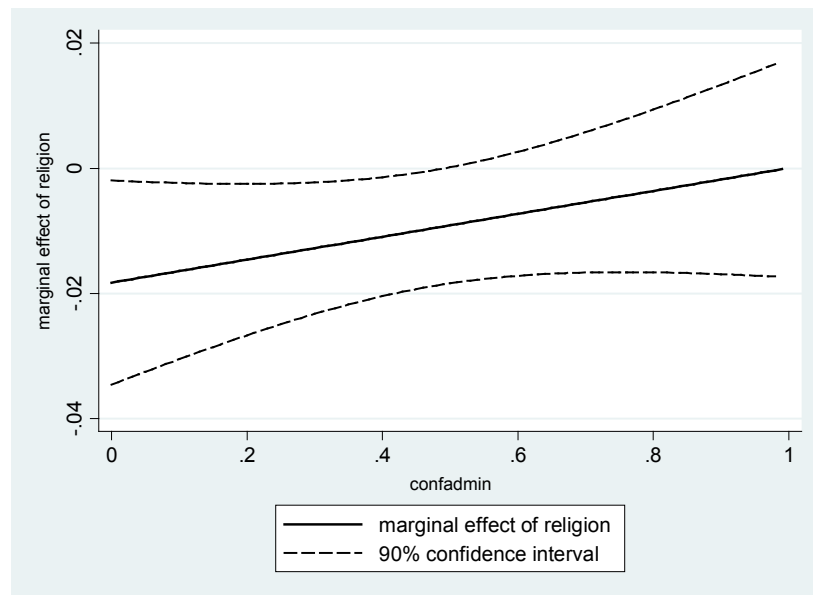
Table 9: Religiousness, governance quality and attitudes toward government intervention

| dep. variable: | government intervention attitude | | | | | |
|----------------------------|----------------------------------|---------------|---------------|---------------|---------------|---------------|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| quality indicator: | no | legal | legal | confadmin | confadmin | confrel |
| religious | -0.004 | -0.003 | 0.057 | -0.006 | -0.007 | 0.038 |
| | [-0.007] | [-0.006] | [0.103] | [-0.011] | [-0.013] | [0.069] |
| | 0.459 | 0.543 | 0.095 | 0.298 | 0.499 | 0.024 |
| quality indicator | | 0.094 | 0.139 | 0.042 | 0.040 | 0.189 |
| | | [0.056] | [0.083] | [0.054] | [0.052] | [0.139] |
| | | 0.337 | 0.196 | 0.000 | 0.003 | 0.000 |
| religious X quality | | | -0.077 | | 0.002 | -0.093 |
| | | | [-0.111] | | [0.003] | [-0.097] |
| | | | 0.083 | | 0.857 | 0.002 |
| confcomp | -0.084 | -0.086 | -0.086 | -0.100 | -0.100 | |
| | [-0.110] | [-0.112] | [-0.112] | [-0.130] | [-0.130] | |
| | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | |
| N | 107431 | 106579 | 106579 | 106348 | 106348 | 106348 |
| R-sq. (adj.) | 0.138 | 0.139 | 0.139 | 0.141 | 0.141 | 0.138 |

Fixed effects OLS with standard errors adjusted for clustering at the country level. For each estimate, standardized beta-coefficients are reported in square brackets, followed by the cluster-robust p-value. Individual control variables: Gender, income level, education level, health status, employment status (not reported). Macro control variables: unemployment rate, GDP per capita (not reported). Constant, country and survey wave effects not reported.

Figure 9: Marginal impact of religiousness on income equalization attitude conditional on absolute (panel A) and relative confidence in administration (panel B)

Panel A (equation 5)



Panel B (equation 6)

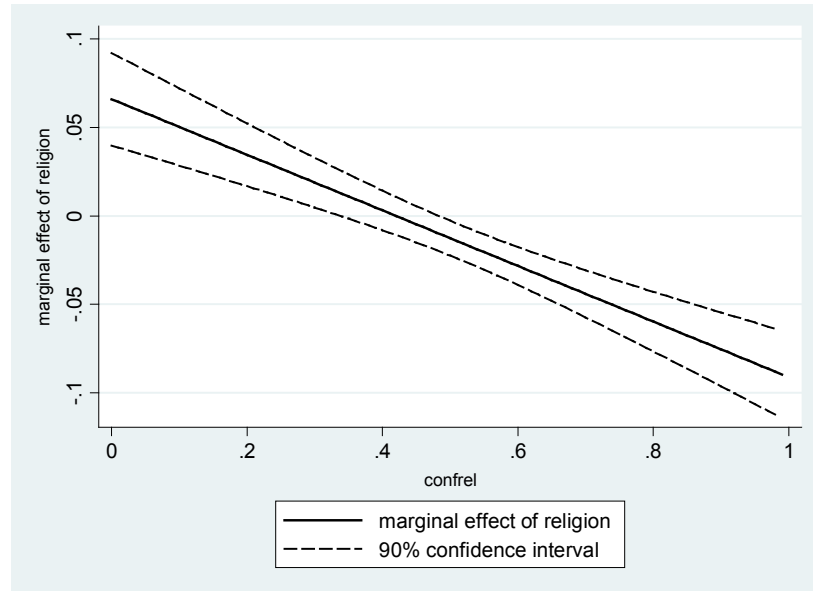
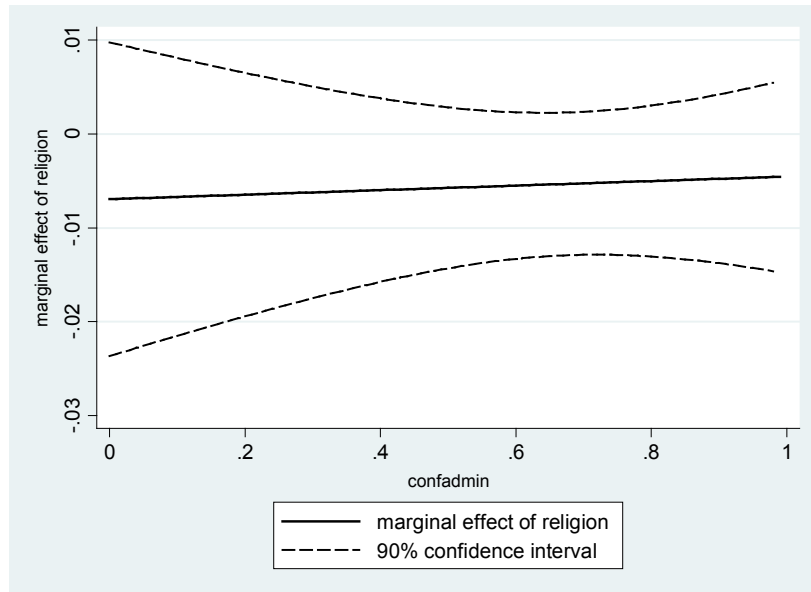
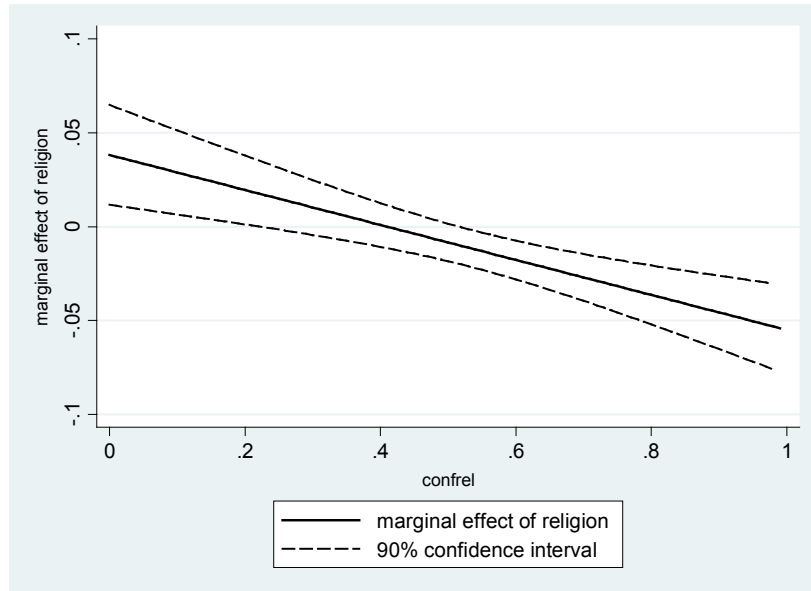


Figure 10: Marginal impact of religiousness on government intervention attitude conditional on absolute (panel A) and relative confidence in administration (panel B)

Panel A (equation 5)



Panel B (equation 6)



4.5 Ideology, governance quality and Welfare State attitudes

Individual views about the proper role of the state are mirrored frequently in political ideologies. Left-leaning people are conjectured to be more pro-income redistribution, more pro-government intervention and more market-skeptical (Lipset 1983). If left vs. right ideological convictions are primarily determined by Welfare State attitudes and beliefs about the proper role of the state, it would not make sense to employ ideological conviction as an additional explanatory variable, as it would only measure a kind of tautology: Left wingers are then - *by definition* - supportive of redistribution, while political right-wingers are not – again *by definition*.

This reasoning however needs some qualifications. Politically more right-leaning people should not a priori be expected to be opposed to more Welfare State services and income redistribution. On the one hand, a classical conservative may be skeptical toward a dominating role of government in the economy, at least as regards detailed state interventions. On the other hand, right-wing voters can similarly be assumed to be in favor of pro-poor redistribution and intervention, as these are often central elements of an economic populism of nationalist parties (Derks, 2004).³⁵ Seen from this standpoint, to adhere to a politically rightist ideology is not simply a shortcut for all anti-interventionist/anti-redistribution preferences.

To address this possible relationship, we re-estimated all regressions for income equalization and government intervention attitudes and all informal institutions, but including additionally an indicator for self-assessed political position. Political ideology is measured by WVS/EVS question e033, which reads “*In political matters, people talk of ‘the left’ and ‘the right’. How would you place your views on this scale, generally speaking?*” We recoded answers, which were given originally on a 1-10 point scale to a 0-1-scale, where higher values indicate a more left-wing orientation.

To proxy governance quality we employ our *confrel*-measure of perceived administrative quality in relation to perceived confidence in major companies, as this proved to be the most stable and best performing indicator for governance structures in our context.

³⁵ In an experimental study, Fehr, Naef and Schmidt (2006) for example find that political attitude has virtually no effect on social preferences.

Table 10: Welfare State attitudes and informal institutions: Controlling for political ideology

| Dependent variable: | income equalization attitude | | | government intervention attitude | | |
|------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| left ideology | 0.226 [0.169] 0.000 | 0.224 [0.168] 0.000 | 0.228 [0.171] 0.000 | 0.151 [0.179] 0.000 | 0.152 [0.179] 0.000 | 0.151 [0.183] 0.000 |
| <i>core belief:</i> | | | | | | |
| trust in people | -0.038 [-0.061] 0.004 | | | -0.042 [-0.106] 0.000 | | |
| life control | | -0.118 [-0.091] 0.000 | | | -0.101 [-0.122] 0.000 | |
| religious | | | 0.075 [0.087] 0.000 | | | 0.043 [0.078] 0.003 |
| confrel | 0.128 [0.060] 0.000 | 0.116 [0.055] 0.000 | 0.226 [0.106] 0.000 | 0.106 [0.079] 0.000 | 0.091 [0.067] 0.000 | 0.171 [0.127] 0.000 |
| core belief X confrel | 0.082 [0.072] 0.001 | 0.068 [0.035] 0.078 | -0.136 [-0.090] 0.000 | 0.075 [0.104] 0.000 | 0.067 [0.054] 0.011 | -0.075 [-0.078] 0.002 |
| N | 95610 | 97062 | 98128 | 89713 | 91038 | 92048 |
| R-sq. (adj.) | 0.118 | 0.122 | 0.119 | 0.172 | 0.177 | 0.174 |

Fixed effects OLS with standard errors adjusted for clustering at the country level. For each estimate, standardized beta-coefficients are reported in square brackets, followed by the cluster-robust p-value. Individual control variables: Gender, income level, education level, health status, employment status (not reported). Macro control variables: unemployment rate, GDP per capita (not reported). Constant, country and survey wave effects not reported.

Controlling for ideology reduces sample size by around 10 percent as self-assessed political position in the right-to-left spectrum has not been a subject question in all surveys. With respect to the ideology variable we find the expected result: people who locate themselves on the political left are more pro income equalization and more pro government intervention. The effects are particularly strong; the standardized beta coefficients are 0.17 to 0.18 and always significant at a 1%-confidence level.

Including a measure for political ideology does not affect any of our results for the informal institutions and interaction effects. Trust in people has a positive impact on income equalization and on government intervention attitudes only at higher levels of perceived (relative) quality of public administration; life control is negatively associated with both Welfare State attitudes, but the effect is mitigated by a higher (relative) quality of administration. Also, the results for religiousness are confirmed. At low levels of perceived governance quality increased religiousness is associated positively both with preferences for income equalization and government intervention; at high (relative) quality, the correlation is negative.

5 Conclusions

The main purpose of the paper was to identify key informal institutions determining a demand for the Welfare State within the context of the perceived quality of a country's institutional framework. Besides narrow individual self-interest, Welfare State attitudes are usually shaped by relatively stable cultural and social norms, conventions, moral values, or personal traits. The paper identifies key informal institutions (core beliefs) determining personal support for the Welfare State, and analyzes their interrelation with the perceived quality of a country's formal institutional framework. This concept is in accord with Douglass North's conception of the importance of compatibility between formal and informal institutions. The main case is that people are willing to confer an important role to government only if that is in line with their core beliefs. To analyze preferences we followed a comprehensive concept of the Welfare State, measuring attitudes as regards its two basic roles, income redistribution and government intervention.

Both the literature focused on the relationship between informal institutions and economic growth, and the literature dealing with cultural factors of Welfare State size point out the importance of social trust. However, from our empirical findings we can draw a conclusion that generalized trust in people is probably not the most appropriate concept for an analysis of people's attitudes toward the Welfare State since it matters only 'conditionally'. According to our results, trust in people is generally associated with a higher support for redistribution and government intervention only if perceived quality of administration is high and confidence in companies is low.

Therefore, we would rather suggest employing the concept locus of control in order to identify main core beliefs as a driver of Welfare State attitudes. Here, we can distinguish between two basic modes: internal and external locus of control. We consider internal locus of control to be a general way of thinking which is characterized by strong features of individualism such as self-confidence, initiative and optimism. Thus, such a belief in oneself is in fact a general informal institution seriously influencing human behavior. Within external locus of control, we propose existence of two general ways of thinking: belief in God and belief in government. Both are characterized by a conviction that outcomes are not consequences of personal effort and skills.

Internal locus of control, being expressed through the variable Life control from WVS, seems to be a powerful determinant in terms of both attitudes toward government intervention and income redistribution. Life control is strongly negatively related to attitudes for income

equalization at high levels of statistical significance across all model specifications. Similarly, it shows strongly negative relationship to government intervention attitudes, where significance never drops below a 5%-level. Analyzing conditional effects, among people who do not believe in ability to control their own lives, both a high perceived quality of public administration and low confidence in major companies enhance preferences for redistribution and intervention.

As regards the analysis of external locus of control, we focus particularly on religiousness or belief in God. Nevertheless, results are ambiguous. People who assert themselves as religious are less favorable toward income equalization. This result indicates a proximity to the substitution theory between religion and state as two possible types of insurance against adverse events. Concerning interaction terms, variation in public administration quality surprisingly does not appear to have an impact on the relationship between religiousness and income equalization preferences. However, religious people seem to be substantially less supportive of redistribution and government intervention if confidence in major companies (as compared to confidence in administration) is high.

To test robustness of our results, we also employed a variable for the political ideology of a respondent. However, we are faced with the problem that Welfare state attitudes may be a more or less direct synonym of ideological convictions. Both variables may therefore measure a similar belief. For that reason, we use political ideology only as an additional control variable for sensitivity analyses. We find that, as expected, people who claim to be political 'left-wingers' also report a significantly more positive view on income equalization and government intervention. Nevertheless, results for social trust, life control, and religiousness are not affected by including this additional control.

For sure, an analysis of both modes of external locus of control should remain topics for future research. Regarding religiousness, among others, one may intend to test a hypothesis on the importance of church-state separation inspired by Chen and Lind (2007): European countries with low religiosity and low church-state separation tend to have expanded Welfare States.

Emphasizing the importance of locus of control as the most important informal institution determining Welfare States preferences, we can highlight some policy relevant conclusions toward the sustainability of Welfare States in Europe in a long-term perspective. Assuming that European Welfare States face the mentioned double challenge, it is easy to imply that they need to be reformed. Nevertheless, even as regards formal institutions, it is widely accepted that it is rather difficult to transform them in a substantive way.

Rigidity could be even more problematic in case of informal institutions. E.g. Jütting (2003) claims that the frequency of changes of tradition, social norms and customs is no fewer than in order of centuries; or in times of shocks and crises. More recently, Spolaore and Wacziarg (2013) yet emphasize that with respect to these informal institutions "persistence does not mean perfect, deterministic persistence. [...] while long-term history matters, there is much scope for variations, exceptions and contingencies."

In our paper, we propose belief in control over one's own life as a general code of thinking highly impacting the attitude toward government intervention and income equalization. Belief in oneself, or more generally, most behavioral traits, are determined by a knotty mix of factors being formed mainly in childhood, which are in part genetically and socially transmitted, partially transferable between parents and children and so on (Verme, 2009). Therefore, informal institutions can hardly be changed by operating public policies. If one wants to impact on people's attitudes, and thus, to affect Welfare States demand and acceptance of reforms, probably the most meaningful strategy is to focus on education systems and (complementarily) on social policy in a long term perspective. In a society with a higher share of independent, self-confident, active people it is easier to introduce reforms which require a substantial overhaul of the Welfare State that sets the focus more on personal responsibility and provision.

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Annex Table A1: Welfare State attitudes, country averages 1990s and 2000s

| country | code | Income equalization attitudes | | Government intervention attitudes | |
|----------------|------|-------------------------------|-------|-----------------------------------|-------|
| | | 1990s | 2000s | 1990s | 2000s |
| Australia | AUS | 0.49 | 0.48 | 0.33 | 0.39 |
| Austria | AUT | 0.55 | 0.72 | 0.27 | 0.36 |
| Belgium | BEL | 0.47 | 0.48 | 0.35 | 0.40 |
| Bulgaria | BGR | 0.44 | 0.36 | 0.39 | 0.43 |
| Canada | CAN | 0.36 | 0.49 | 0.27 | 0.36 |
| Croatia | HRV | 0.60 | 0.63 | 0.36 | 0.41 |
| Cyprus | CYP | . | 0.54 | . | 0.44 |
| Czech Republic | CZE | 0.41 | 0.58 | 0.33 | 0.39 |
| Denmark | DNK | 0.39 | 0.34 | 0.32 | 0.36 |
| Estonia | EST | 0.36 | 0.45 | 0.43 | 0.44 |
| Finland | FIN | 0.55 | 0.59 | 0.34 | 0.39 |
| France | FRA | 0.56 | 0.54 | 0.36 | 0.42 |
| Germany | DEU | 0.44 | 0.63 | 0.32 | 0.39 |
| Greece | GRC | . | 0.61 | . | 0.44 |
| Hungary | HUN | 0.55 | 0.60 | 0.42 | 0.48 |
| Iceland | ISL | 0.48 | 0.51 | 0.29 | 0.35 |
| Ireland | IRL | 0.42 | 0.52 | 0.35 | 0.35 |
| Italy | ITA | 0.45 | 0.45 | 0.39 | 0.44 |
| Japan | JPN | 0.49 | 0.45 | 0.48 | 0.44 |
| Latvia | LVA | 0.35 | 0.38 | 0.41 | 0.44 |
| Lithuania | LTU | 0.47 | 0.51 | 0.39 | 0.42 |
| Luxembourg | LUX | 0.37 | 0.40 | . | 0.38 |
| Malta | MLT | 0.24 | 0.37 | 0.37 | 0.33 |
| Netherlands | NLD | 0.43 | 0.47 | 0.38 | 0.40 |
| New Zealand | NZL | 0.52 | 0.51 | 0.36 | 0.33 |
| Norway | NOR | 0.48 | 0.48 | 0.35 | 0.37 |
| Poland | POL | 0.36 | 0.45 | 0.45 | 0.48 |
| Portugal | PRT | 0.61 | 0.54 | 0.39 | 0.41 |
| Romania | ROM | 0.50 | 0.65 | 0.34 | 0.35 |
| Slovakia | SVK | 0.44 | 0.53 | 0.44 | 0.39 |
| Slovenia | SVN | 0.58 | 0.66 | 0.38 | 0.41 |
| South Korea | KOR | 0.45 | 0.39 | 0.40 | 0.50 |
| Spain | ESP | 0.54 | 0.53 | 0.45 | 0.49 |
| Sweden | SWE | 0.42 | 0.51 | 0.30 | 0.35 |
| Switzerland | CHE | 0.58 | 0.65 | 0.25 | 0.36 |
| United Kingdom | GBR | 0.46 | 0.51 | 0.38 | 0.33 |
| United States | USA | 0.44 | 0.43 | 0.26 | 0.33 |
| mean | | 0.46 | 0.51 | 0.36 | 0.40 |

Source: Own calculations based on Word Values Survey/European Values Study (var. years)

Annex Table A2: Descriptive statistics

| Variable | Obs | Mean | Std. Dev. | Min | Max |
|-------------------------------------|--------|--------|-----------|-------|--------|
| Welfare State attitude | | | | | |
| income equalization attitude | 165138 | 0.490 | 0.313 | 0 | 1 |
| government intervention attitude | 147708 | 0.382 | 0.197 | 0 | 1 |
| Informal institution | | | | | |
| trust in people | 162098 | 0.342 | 0.474 | 0 | 1 |
| life control | 162338 | 0.652 | 0.241 | 0 | 1 |
| religiousness | 164784 | 0.500 | 0.353 | 0 | 1 |
| left ideology | 135831 | 0.510 | 0.229 | 0 | 1 |
| Perceived governance quality | | | | | |
| confadmin | 162879 | 0.454 | 0.250 | 0 | 1 |
| confcomp | 148456 | 0.435 | 0.256 | 0 | 1 |
| confrel | 145199 | 0.510 | 0.142 | 0 | 1 |
| Individual controls | | | | | |
| female | 168875 | 0.533 | 0.499 | 0 | 1 |
| age | 168443 | 45.640 | 17.225 | 15 | 108 |
| retired | 165143 | 0.211 | 0.408 | 0 | 1 |
| health status | 141197 | 0.306 | 0.231 | 0 | 1 |
| income low | 168922 | 0.171 | 0.377 | 0 | 1 |
| income high | 168922 | 0.167 | 0.373 | 0 | 1 |
| unemployed | 165143 | 0.056 | 0.229 | 0 | 1 |
| education low | 168922 | 0.233 | 0.423 | 0 | 1 |
| education high | 168922 | 0.176 | 0.381 | 0 | 1 |
| Macro controls | | | | | |
| legal quality | 110 | 0.774 | 0.123 | 0.484 | 0.952 |
| GDP per capita (log.) | 113 | 10.014 | 0.542 | 8.532 | 11.287 |
| unemployment rate | 108 | 0.068 | 0.036 | 0 | 0.206 |

Source: World Values Survey/European Values Study, except for *legal quality* (Gwartney, Lawson, and Hall, 2012; *GDP per capita* (Heston, Summers, and Aten, 2012) and *unemployment rate* (Eurostat AMECO database).



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Project Information

Welfare, Wealth and Work for Europe

A European research consortium is working on the analytical foundations for a socio-ecological transition

Abstract

Europe needs a change: The financial crisis has exposed long neglected deficiencies in the present growth path, most visibly in unemployment and public debt. At the same time Europe has to cope with new challenges ranging from globalisation and demographic shifts to new technologies and ecological challenges. Under the title of Welfare, Wealth and Work for Europe – WWWforEurope – a European research consortium is laying the analytical foundations for a new development strategy that enables a socio-ecological transition to high levels of employment, social inclusion, gender equity and environmental sustainability. The four year research project within the 7th Framework Programme funded by the European Commission started in April 2012. The consortium brings together researchers from 33 scientific institutions in 12 European countries and is coordinated by the Austrian Institute of Economic Research (WIFO). Project coordinator is Karl Aiginger, director of WIFO.

For details on WWWforEurope see: www.foreurope.eu

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