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COOPERATION OR PUNISHMENT

The Effects of Trust on Government Regulation and Taxation

NIKLAS HARRING

VICTOR LAPUENTE

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QOG THE QUALITY OF GOVERNMENT INSTITUTE
Department of Political Science
University of Gothenburg
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ABSTRACT

For many economists government intervention is linked to low levels of interpersonal trust and corruption, while, on the contrary, for many political scientists, government intervention is associated to high trust and low corruption. The goal of this paper is to reconcile these contrasting findings by distinguishing the differing effects of trust over two alternative types of government intervention: regulation and taxation. Low-trust individuals demand more governmental regulation but less government taxation. We test the hypotheses by focusing on a particular policy – i.e. environmental policy – where governments use different mixes of regulatory and tax mechanisms, and for which we have data on both trust in others (interpersonal trust) and trust in public institutions (institutional trust). The main finding is that those individuals with low trust (both interpersonal and institutional trust) tend to demand, ceteris paribus, more governmental regulation of the environment and, but are less inclined to pay higher taxes to protect the environment. We also find that the effect of institutional trust is stronger than the effect of interpersonal trust, which puts previous studies in a perspective.

Niklas Harring
The Quality of Government Institute
Department of Political Science
University of Gothenburg
Niklas.harring@pol.gu.se

Victor Lapuente
The Quality of Government Institute
Department of Political Science
University of Gothenburg
Victor.lapuente@pol.gu.se

Introduction

Both political scientists (Rothstein and Uslaner 2005, Rothstein 2011) and economists (Alesina and Angeletos 2005b, Aghion et al. 2010, Pinotti 2012) have revisited the relationship between culture and institutions explored in many classical sociological studies from Banfield (1958) to Putnam (1993). That is, up to which extent the values prevailing in a society are related to its political institutions? And, in particular, do the levels of interpersonal trust lead to a smaller or bigger government? Yet the responses point out in contrasting directions: while for some scholars government intervention is linked to low trust and corruption, others claim the opposite.

On the one hand, some researchers argue that a society where individuals trust each other is correlated with low levels of corruption and, in turn, with citizens who are more willing to support a highly-redistributive welfare state (Rothstein and Uslaner 2005). Irrespective of whether the causal arrow goes from redistributive institutions to high interpersonal trust (Rothstein 2011, Dinesen 2013) or the other way around (Bergh and Bjørnskov 2011, 2014, Daniele and Geys 2015), this strand of thought underlines the idea of societies entering virtuous (or vicious) cycles of high (low) trust, low (high) corruption and high (low) government redistribution (Rothstein and Uslaner 2005). Along similar lines, experiments using public good games show a higher cooperative behavior – that is, a higher support for social welfare – among high-trust individuals (Fehr and Leibbrandt, 2011; Thöni, Tyran, and Wengström 2012).

On the other hand, another line of scholarship – more prevalent among economists – considers that, quite the contrary, it is actually high levels of corruption what impulses citizens to ask for more government intervention. If a society believes that "corruption determine wealth, it will levy high taxes" (Alesina and Angeletos 2005a, 960). This generates feedback mechanisms, because, in turn, "bigger governments raise the possibilities for corruption" (Alesina and Angeletos 2005b, 1227). If, on the contrary, "a society believes that individual effort determines income (…), it will choose low redistribution and low taxes" (Alesina and Angeletos 2005a, 960). Similarly, if a society perceives most of its agents as untrustworthy, it will also demand more government regulation. For instance, if citizens believe most individuals will free-ride and generate negative externalities such as environmental pollution, they will prefer command-and-control solutions – such a strict regulation – over less restrictive alternatives (Harring, 2015). Consequently, we have two type of societies or

"two equilibria: a good one with a large share of civic individuals and no regulation, and a bad one, where a large share of uncivic individuals support heavy regulation" (Aghion et al. 2010, 1016).

This paper aims to reconcile the findings of those scholars linking state intervention to civic behavior (or high trust) with those linking it to uncivic behavior (or low trust). In this sense, we follow recent work that has noted either the opposing effects of interpersonal trust on attitudes toward government intervention (Harring, 2015, Pitlik and Kouba 2015) or the conditional effects of trust depending on the perceived quality of public institutions (Daniele and Geys 2015). Unlike these approaches, which disentangle the effects of two different types of trust (interpersonal and institutional trust), the contribution of this paper is distinguishing between two types of state intervention – regulation and taxation, which act as partial substitutes of each other

Our view echoes empirical developments in comparative political economy that point out two distinct dimensions of government intervention (Hopkin and Blyth 2012, Hopkin, Lapuente and Möller 2013). On the one hand, countries that heavily regulate an economic sector (e.g. finance) also tend to heavily regulate others (e.g. labor and product markets). On the other, this pattern of regulation is not correlated to taxation and redistribution. Take Denmark or Sweden, low-regulated economies with high taxation; or, at the other extreme of the OECD, Spain or Japan, highly-regulated economies with low taxation. Our paper aims to provide micro-foundations for these "two varieties of government intervention" (ibid.): regulation and taxation. We argue that why some societies marginally prefer regulatory solutions over tax-based ones to similar collective problems may depend on the prevailing trust levels among its citizens.

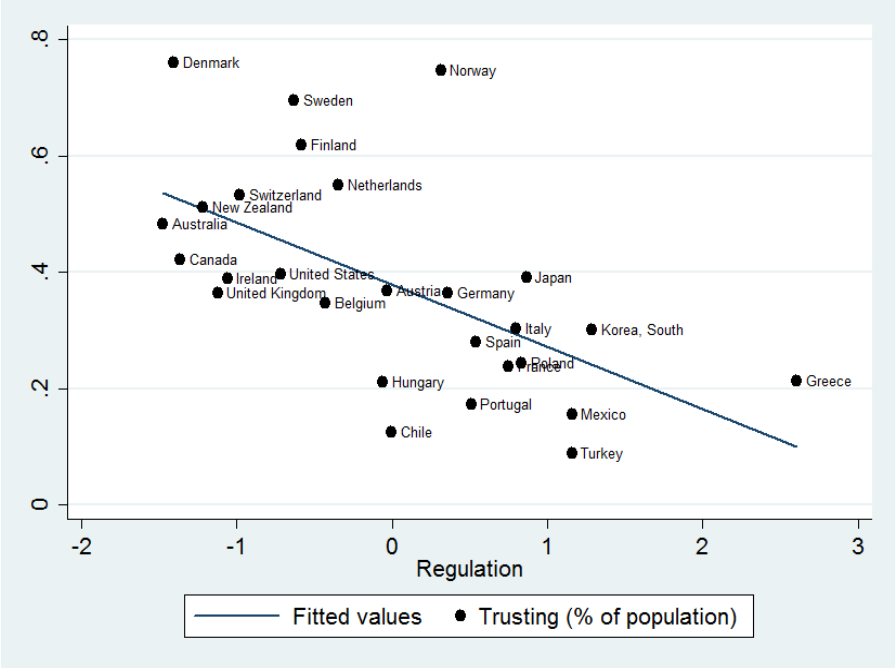
Our theoretical approach is based on two insights from evolutionary theories and experimental studies. Firstly, that individuals with both high interpersonal and institutional trust are more willing to cooperate (Fehr and Leibbrandt, 2011; Thöni, Tyran, and Wengström 2012). Second, that a reproductive strategy for defectors may consist on engaging in what is known as "anti-social punishment" (Cinyabuguma et al 2006, Denant-Boemont et al 2007, Hermann 2008) – that is, to punish everyone in a society irrespective of whether they "deserve" it or not. This "'dark side' of punishment" (Rand et al. 2010, 624), far from being irrational, is a survival strategy for defectors (low-trust individuals in our interpretation) – who, otherwise, could be replaced by cooperators (high-trust individuals), since the latter's payoffs would constantly increase if only defectors are punished. Consequently, defectors may prefer a too stringent regulation even if – or *specially* if – it is imple-

mented by an arbitrary ruler: by inflicting harm to everyone defectors reduce the others' payoffs by more than their relative payoff. Put together, these two insights point out two alternative ways of solving collective problems: one more centered on cooperation (which, in turn, would be reflected on a higher willingness to pay taxes) and other more centered on punishment (i.e. higher reliance on government regulation).

The paper is organized as follows. Next section presents the two hypotheses on the opposing effects of (interpersonal and institutional) trust on government intervention. Our first hypothesis is that there should be *a positive effect of both types of trust –interpersonal and institutional – over the demand for government taxation.* Our second hypothesis states that there should be *a negative effect of both types of trust –interpersonal and institutional – over the demand for government regulation*. Subsequently, we test these hypotheses in a policy area where governments use both regulatory as well as taxation mechanisms: environmental policies. We employ hierarchical regression models on the fifth wave of the World Values Survey, covering 40,000 individuals from 37 countries. We find that, controlling for socio-economic factors as well as levels of interpersonal trust, those individuals who mistrust their public institutions tend to demand, ceteris paribus, more governmental regulation of the environment (Hypothesis 2) and, at the same time, are less inclined to pay higher taxes to protect the environment (Hypothesis 1).

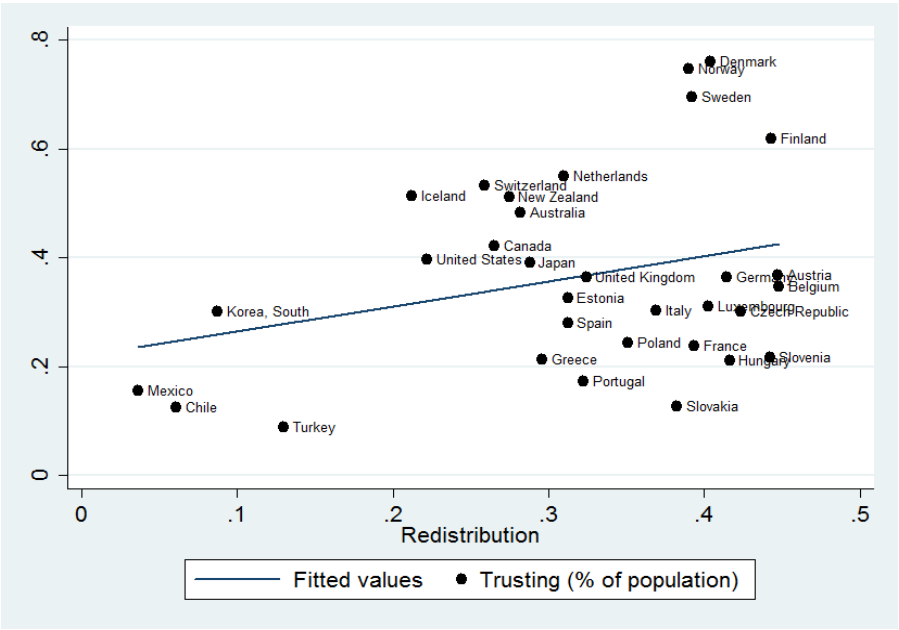
These findings at individual level seem to concur with the aggregate relationship between trust levels and government intervention in cross-national comparisons. We can see them in Figures 1 and 2, which plot national average levels of interpersonal trust and indicators of both government regulation and taxation/redistribution for OECD countries. Figure 1 shows the negative relationship between average levels of interpersonal trust in a country and the intensity of government regulation in labor, product, and financial markets. The composite index of regulation comes from Hopkin, Lapuente and Möller (2013), who use a wide range of measurements produced by the World Bank, the OECD and the Heritage foundation.[i] On the contrary, in Figure 2, which plots national average levels of interpersonal trust country and government redistribution[ii], we do not see a negative correlation. If any, there seems to be a positive association between interpersonal trust and redistribution levels.

FIGURE 1, INTERPERSONAL TRUST AND GOVERNMENT REGULATION.



Source: EVS/WVS and Hopkin, Lapuente and Möller 2013

FIGURE 2, INTERPERSONAL TRUST AND GOVERNMENT REDISTRIBUTION



Source: EVS/WVS and OECD Dataset Income Distribution

We thus see that countries with low levels of trust (e.g. Greece, Mexico, Turkey) have some of the highest levels of government regulation and the lowest levels of government redistribution. That is, their governments are highly interventionist when it comes to defining labor relations, the number of steps needed to start a new business, opening hours, entry levels and specific regulations of all sort of economic activities. Yet they are poorly interventionists regarding redistributing income through taxation. Conversely, governments in high-trust countries (e.g. Denmark, Finland, Sweden) intervene relatively little in regulation, giving freedom to their economic agents to innovate (Hopkin, Lapuente and Möller 2013), and, at the same time, intervene a lot in redistribution. This combination of a generous welfare protection (i.e. high intervention in redistribution) with very liberal labor laws (i.e. low intervention in regulation), known as the 'flexicurity', has been praised by policy-makers and researchers for its ability to promote an inclusive growth (Sapir et al 2004, Sapir 2006, Hopkin and Blyth 2012). In this paper we aim to investigate the micro-foundations of this model of intervention – and its reverse, the 'rigi-insecuriy' model of high regulation and low redistribution that seems prevailing in low-trust countries – by exploring individual attitudes towards government intervention.

Theory

The literature has noted the paradoxical opposing effects of interpersonal trust attitudes toward state intervention (Pitlik and Kouba 2015). On the one hand, high-interpersonal trust has been associated with a "stronger propensity to support government action" (ibid.,359). If you think others will not use the welfare system inappropriately, then you are more likely to contribute to it paying high taxes (Daniele and Geys 2015). Similarly, people need to trust their fellow citizens in order to accept the individual costs of taxation, since paying taxes is a collective dilemma in itself (Scholz and Lubell 1998). People will not pay if they do not perceive that others pay their fair share of taxes. This could explain why historical levels of trust are correlated to current levels of social spending (Bergh and Bjørnskov 2011). In addition, the level of institutional trust – measured by the confidence of citizens in the impartiality of public institutions – has also been argued to positively affect people's attitude towards government intervention (Hetherington 1998, Rothstein, Samanni and Teorell 2012 Svallfors 2013, Daniele and Geys 2015). The support for high taxation-spending

should thus rise when citizens trust public institutions will manage tax revenues in an impartial and non-corrupt way (Svallfors 2013).

On the other hand, high interpersonal trust has been linked to lower levels of *other* government intervention: the regulation of economic activities. For this "variety of government intervention" (Hopkin, Lapuente and Möller 2013) which is economic regulation the effect of trust does seem to reverse. A society with high-trusting individuals may need less regulation. A mechanism would be that civicness replaces regulation: "higher generalized trust reduces requirements for economic regulation as it goes hand in hand with greater confidence in civicness of anonymous private market actors" (Pitlik and Kouba 2015, 359). If an individual thinks most other individuals are not trustworthy (i.e. if the interpersonal trust is low), they will want to punish them with stringent regulations. Empirically, Aghion et al. (2010) link low interpersonal trust to high government regulation by finding, using World Values Survey data, that less trustful individuals demand more business regulation because they expect entrepreneurs to be uncivic. Low-trust individuals will demand would-be entrepreneurs to be subject to a more stringent set of administrative procedures, with restrictive limitations on when and how a business can be open and under which strict conditions employees may be hired and fired. Since an excessive regulation not only is economically inefficient (Blanchard and Giavazzi 2003, Djankov et al. 2002), but it also leads to more corruption opportunities, it emerges a "vicious cycle" going from regulation to corruption, to mistrust, and, again, to more regulation. Likewise, Pinotti (2012) finds that low trust is associated with more market entry regulations.

These findings go in line with the "unpleasant capitalist" hypothesis (Di Tella and MacCulloch 2009, Pitlik and Kouba 2015). Through stringent regulations, distrustful individuals want to punish the people (capitalists) whom they regard "bad". Yet this perspective cannot account for the effects of institutional trust: why do individuals who do not trust the one designing and enforcing the regulations do nevertheless demand a higher regulation by this same untrustworthy ruler? Why do you want more from an institution you consider "bad"?

In order to understand this paradox, we resort to recent developments in evolutionary theory that have challenged the traditional view of punishment as promotor of cooperation (Hauser, Nowak and Rand 2014). The reason is the discovery in numerous experiments of what has been labelled as "anti-social punishment" (Cinyabuguma et al 2006, Denant-Boemont et al 2007, Hermann et al.

2008). In many occasions, people inflict punishment not only at cooperators – which is the reason why punishment was traditionally seen as a mechanism for achieving social cooperation –, but also to cooperators (Gächter and Herrmann, 2009, Gächter and Herrmann, 2011, Herrmann et al., 2008, Rand and Nowak, 2011). For instance, in public goods games free-riders who had been punished in the last round decided to punish cooperators in the next round as revenge. Due to their puzzling nature, these findings from experimental studies were excluded from theoretical models (Hauser, Nowak and Rand 2014).

Yet, in our view, two recent theoretical suggestions may help to understand the also puzzling relationship between low institutional trust and high support for government regulation. In the first place, this "'dark side' of punishment" (Rand et al. 2010, 624) which is anti-social punishment may be a rational strategy by defectors – or, in our case, low-trust individuals. If punishment were restricted to non-cooperators, cooperators would be increasingly rewarded and, eventually, defectors would be eliminated. Yet we see many defectors in real life. And the reason might be an overlooked strategy of defectors: the support of an arbitrary punishment that deters all individuals. By inflicting harm to everyone, defectors can reduce the others' payoffs by more than their relative payoff – and thus increase their reproductive chances (ibid.). Translated to the issue at stake here, defectors may prefer a too stringent government regulation even if – or specially if – it is implemented by an arbitrary ruler. The individuals who feel they are going to relatively benefit less from a new business opportunity – e.g. low-trust individuals who will engage less in productive exchanges than their high-trust fellows – will prefer a regulation that curtails those productive exchanges across the board. In evolutionary terms, low-trust individuals compete with high-trust individuals and will aim to undermine their reproductive chances by imposing anti-social punishments such as a restrictive government regulation of private activities.

A second mechanism from evolutionary theory that can connect anti-social punishment to higher support for government regulation is the observation that anti-social punishment does not seem to be uniformly distributed across the world. Intriguingly, anti-social punishment largely varies across societies, being more prevailing in places with low levels of social cooperation (e.g. Athens) than in places with high levels of social cooperation (e.g. Copenhagen), where individuals exclusively punish non-cooperators (Herrmann et al. 2008). In other words, anti-social-punishment and cooperation could be (inversely) correlated. The more eager people are to punish, the less willing they are to cooperate Herrmann et al. (2008) found, using a cross-national design, that cooperation generates

less antisocial punishment since "cooperators, who behave in the normatively desirable way, should not get punished; strong norms of civic cooperation might act as a constraint on antisocial punishment" (Herrmann et al. 2008: 1365). This behavior is critically conditioned by the individuals' perception of their institutions: "The strength of the rule of law in a society might also have an impact on antisocial punishment. If the rule of law is strong, people trust the law enforcement institutions, which are perceived as being effective, fair, impartial, and bound by the law. Revenge is shunned. If the rule of law is weak, the opposite holds. Thus, the rule of law reflects how norms are commonly enforced in a society." (ibid.). This is a second mechanism connecting low-trust individuals to a more stringent regulation: that they perceive their societies as lacking rule of law, and thus they experience a higher desire to punish both defectors and cooperators. Conversely, if a state is perceived as a credible enforcer, there should be less necessity of preemptively punishing all citizens with a restrictive regulation.

In sum, we have two opposing hypotheses on the relationship between trust and government intervention, depending on the type of such intervention. Regarding taxation, an individual will have a stronger willingness to pay taxes if, first, she thinks other individuals will pay their fair share (i.e. if the interpersonal trust is high) and if, second, she thinks the taxes will be managed by a fair government (i.e. if the institutional trust is high). Thus, in order to get the acceptance of individuals to pay taxes, we would need what Fehr, Fischbacher and Gächter (2008, 3) refer to as a "social structure" of both relatively high interpersonal trust and relatively high institutional trust (cf. Rothstein and Uslaner 2005; Scholz and Lubell 1998).

Hypothesis 1: The more individuals trust their fellow citizens (i.e. interpersonal trust) and their public institutions (i.e. institutional trust), the more positive their attitude toward government taxation.

Yet, regarding government regulation, the relationship reverses: low interpersonal and institutional trust lead to a higher demand of government regulation, because of two mechanisms: first, when you do not trust others, you want a highly interventionist government (cf. Aghion et al 2010, Pinotti 2012); and, second, low-trust individuals aim at minimizing the chances of success of high-trust individuals, and thus they support a more stringent regulation.

Hypothesis 2: The less individuals trust their fellow citizens (i.e. interpersonal trust) and their public institutions (i.e. institutional trust), the more positive their attitude toward government regulation.

Method and material

In order to test the hypotheses, we employ a hierarchical regression model on the fifth wave of the World Values Survey. Previous research on cross-national differences in attitudes to policy instruments has shown that there are contextual effects or more precisely individuals cluster within countries (Aghion et al. 2010, Harring 2015; see also Franzen and Meyer, 2010). It is then problematic to apply for example OLS models, since OLS is based on an assumption the units of analysis are independent from one another. Instead we apply a hierarchical model.

Two questions are used to measure attitudes towards environmental state intervention. People are asked to consider whether they agree or disagree with the statements "*The Government should reduce environmental pollution, but it should not cost me any money"*, and "*I would agree to an increase in taxes if the extra money were used to prevent environmental pollution"* ("strongly agree"; "agree"; "disagree"; "strongly disagree").

The first question clearly captures an attitude that the government is responsible for protecting the environment, but it should not imply any costs for the respondent personally, while the second question captures a shared responsibility and attitudes toward a policy that imply individual costs with potential free-riding possibilities. Hence, as our outcome variables are ordered – the distance between the categories is not consistent – it is most suitable to use a ordered logit model.

Studying the intraclass correlation coefficient investigating the relationship between within and between variance, there is clustering within countries. For the question regarding attitudes toward governmental intervention 12% can be explained at a contextual level (i.e. cross-country variation), while for the question on willingness to pay higher taxes it is about 9 %.

In order to measure interpersonal trust, we use the question "Do you think most people would try to take advantage of you if they got a chance, or would they try to be fair?". People are asked to place themselves on a scale form 1-10 where 1= would take advantage and 10 = try to be fair. Even though this operational definition of interpersonal trust has been criticized (Lundmark, Gilljam & Dahlberg, 2015; Thöni, Tyran, Wengström, 2012) it is an established way to measure interpersonal trust. Institutional trust on the other hand is to some extent a more troublesome concept in the sense that it can imply a lot of things, such as for example national pride or support for the incumbent party (Levi and Stoker 2000). In order to measure institutional trust an index based on peo-

ple's stated confidence in "the police", "the justice system" and "the civil service" (Cronbach's α: .77) is used, capturing what can be defined as trust in *implementing* political institutions. Trust in implementing political institutions is argued to be substantially different from trust in *representative* institutions, such as "the government" or "the parliament". It is claimed that trust in implementing institutions is less dependent on partisanship and so forth and rather capture the perceived quality of public institutions (Rothstein and Stolle 2008), which is the primary interest of this text.

Education has also been recoded into three categories (provided by the WVS): lower, middle and upper. In a similar way household income is recoded as low, medium and high. In order to capture political position, people are asked to place themselves on a scale from 1-10 "In political matters, people talk of "the left" and "the right." How would you place your views on this scale, generally speaking?" (1=left, 10=right). Three categories are generated: left (1-4), center (5-6) and right (7-10). We also include a control for gender (female=1, male=0).

Previous research on pro-environmental policy preferences has argued that the cross-country variation can be explained by the quality of government (QoG) (Harring 2014; 2015). Therefore we also include these variables as controls on country-level. In order to capture QoG we use Transparency International's Corruption Perceptions Index (CPI) for 2005, which is highly correlated with other cross-national measures of QoG or good governance (Svensson 2005). CPI is obtained through the Quality of Government data set (Teorell et al. 2011).

Results

TABLE 1, THE IMPACT OF INTERPERSONAL AND INSTITUTIONAL TRUST ON ATTITUDES TOWARD GOVERNMENT REGULATION AND TAXATION. MULTILEVEL ORDERED LOGISTIC MODEL.

	1 Regulation	2 Taxation
Fixed		
Interpersonal trust	0.98*	1.02**
	[0.96,0.99]	[1.01,1.04]
Institutional trust	0.84***	1.46***
	[0.76,0.92]	[1.35,1.58]
Gender(female)	1.03	1.00
	[0.99,1.07]	[0.96,1.04]
Age[a]		
Young	1.04	0.97
	[0.98,1.10]	[0.92,1.03]
Middle-aged	1.04	1.00
	[0.99,1.09]	[0.96,1.05]
In a relationship	0.98	1.00
	[0.94,1.03]	[0.96,1.05]
Education[b]		
Low	1.15***	0.90***
	[1.10,1.21]	[0.85,0.94]
High	0.75***	1.27***
	[0.71,0.79]	[1.20,1.33]
Ideological position[c]		
Left	0.87***	1.33***
	[0.83,0.92]	[1.26,1.40]
Right	0.97	1.01
	[0.93,1.02]	[0.96,1.05]
Income	0.95***	1.05***
	[0.94,0.96]	[1.04,1.06]

QoG	0.88**	0.92
	[0.81,0.96]	[0.85,1.00]
Random		
Constant	1.45***	1.47***
	[1.23,1.72]	[1.23,1.74]
Interpersonal trust	1.00***	1.00**
	[1.00,1.00]	[1.00,1.00]
Institutional trust	1.09***	1.05***
	[1.04,1.14]	[1.02,1.08]
Log likelihood	-43749.32	-42930.16
Degrees of freedom	12.00	12.00
AIC	87534.65	85896.32
N level 2	37	37
N level 1	36846	36717

*Comment: Data: World Values Survey 2005. Odds ratios. 95% confidence intervals in brackets. See methods for the exact wordings of the questions. section * p<0.05, ** p<0.01, *** p<0.001[a] Reference category: "Old", [b]Reference category: "Middle", [c] Reference category: "Center"*

Table 1 reports odds ratios and significance levels from a multilevel ordered logit model. As an odds ratio below one indicate a decreased probability, we see that both the more trust people have in unknown others (.98) and the more trust they have in the implementing public institutions (.84) the more negative they are toward government intervention in the form of regulation . Hence, those who have low interpersonal and institutional trust are more positive toward government regulation. The effects of the two trust measures do not outdo each other and the effects are significant under control for several individual level and contextual level controls We also include random variation for both interpersonal trust and institutional trust and we find that there are significant and substantial effects for institutional trust. Hence the effects are to some extent different in different countries. However, the fixed effects for both interpersonal and institutional trust are still significant. People who have low institutional trust are "punishers" who are more positive toward

government intervention. It is important to note that the effects of institutional trust are stronger than the effects of interpersonal trust.

Studying the effects of interpersonal and institutional trust on the acceptability of taxes we find that are also a significant effect of trust. People who perceive implementing public institutions as trustworthy and those who find people in general as trustworthy are more willing to pay higher taxes for environmental protection. Yet again it is important to point out that we find that the effect of institutional trust is stronger than the effect of interpersonal trust. These effects are robust and significant including both several controls on individual and country level, and random variation.

Regarding the other variables in the model the effects are according to previous findings and assumptions. People who place themselves on the left on the left-right-scale are more positive to both regulation and taxation. Leftist people are more positive to market intervention. People with high incomes are more prepared to pay taxes. Higher education is also associated with the willingness to pay taxes. Regarding the cross-country effect of QoG we find that going from low QoG countries to high QoG countries people are more probable to demand government intervention in terms of regulation. The effect on willingness to pay taxes is not significant.

Discussion

As it is clear from the results section both our first hypothesis (the more individuals trust their fellow citizens and their public institutions the more positive their attitude toward government taxation), and second hypothesis (the less individuals trust their fellow citizens and their public institutions, the more positive their attitude toward government regulation) seem to be supported by the data.

Additionally, another important finding is that the effect of institutional trust –both the negative effect on the demand for regulation and the positive effect on the acceptance of a tax increase – is stronger than the effects of generalized trust. Hence perceptions of public administration's trustworthiness are more important for shaping individual attitudes towards government intervention than perceptions of fellow citizens' trustworthiness… generalized trust which makes previous findings arguing that the demand for regulation is driven by a lack of trust in market actors open to discussion.

Conclusions

This paper has aimed to explore at micro-level the puzzling relationship at macro-level between the average levels of trust in a country and the degree of intervention of its government regarding regulation and redistribution. Why do governments in high-trust countries tend to regulate relative little their economies while at the same time they impose high taxes and redistribution? And why do low-trust societies tend to have governments that intervene highly in relation to regulation, but poorly in redistribution?

We believe this paper contributes to the literature in several ways. In the first place, by disentangling the effects of trust over regulation and taxation the paper helps to reconcile two opposing views on the role of interpersonal trust within the social scientists: those who, like Alesina and Angeletos (2005), Aghion et al. (2010) or Pinotti (2012), link low trust to higher government intervention; and those who, Rothstein and Uslaner (2005) or Rothstein (2011) who link low trust to low government intervention.

Secondly, the paper helps to reconcile traditionally opposing views on regulation. From Pigou (1938), many scholars have noted that regulation is a second-best solution to market failures (Pinotti 2012). Yet, on the contrary, many other scholars have largely criticized government regulation on the basis that it is a rent-seeking device (Tullock 1967, Stigler 1971). In partial support of the critical views on regulation, our findings indicate that regulation may be driven by a punishing spirit/norm: individuals who mistrust their government do nevertheless demand more regulation. It is a vicious circle in the sense that redistributive polices cannot be implemented unless there is a rule-based state in place. Cheating with taxes will generate a demand for even more regulation (and not higher taxes). An analogy to this can be found in the public administration literature where there is a *longing* for the Weberian well-functioning regulatory state rather than or market-based policies in countries with dysfunctional bureaucracies (cf. Pierre & Rothstein 2011).

People who perceive that their fellow citizens trustworthy are more positive toward government intervention that involves individual costs and free-riding risks, indicating the necessity of a social structure with high trust between actors for the acceptance of state intervention that imply individual costs for the public good, while low institutional trust through a willingness to punish, can gen-

erate a demand for more government intervention. It is not easy to totally decipher these different effects of trust in different actors with survey data and we encourage scholars to challenge or test these hypotheses using other data and designs.

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[i] The trust variable (vetical axis) is the response to the question “Generally speaking, would you say that most people can be trusted or that you can’t be too careful in dealing with people?”, where the response “most people can be trusted” has been coded as 1 and “can’t be too careful” has been coded as 0. The regulation variable (horizontal axis) is an Index of Regulation from Hopkin, Lapuente and Möller (2013), where higher values indicate a higher level of regulation. It is composed of nine regulation variables measuring different aspects of labor, product and financial market regulation from the World Bank, the OECD, and the Heritage Foundation, which were included in a PCA analysis (Variance explained: 43.7%, Kaiser-Meyer-Olkin Measure of Sampling Adequacy: 0.733): Difficulty of Hiring Index, Rigidity of Hours Index, Difficulty of Redundancy Index, Starting a Business Procedures, Starting a Business Cost, the OECD Indicator of Product Market Regulation, Trade Freedom, Investment Freedom, and Financial Freedom.

[ii] Trust variable (vertical axis), idem as Figure 1. The redistribution variable (horizontal axis) is the reduction in inequality caused by taxes and transfers, in percent, data from the OCED Dataset Income distribution – Inequality. The data refers to the late 00’s. Available here: http://stats.oecd.org/Index.aspx?DatasetCode=INEQUALITY