

*Social Capital,  
In spite of or due to modernization?*

*-An analysis of a two-dimensional concept*

**David Larsson**



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Förord:

Tack: Ylva och Heine som stått ut med en utdragen uppsatsskrivning.

Torun Ôsterberg

Nils Larsson

Veileder Oddbjørn Knutsen

Antall Ord: 26344

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# 1. Introduction

During the last decade Social Capital has been a vividly debated theme in social sciences and for good reason. Cooperation based on mutual trust is undoubtedly an intrinsic part of a well functioning society. Though not the first to use the label of Social Capital<sup>1</sup>, Robert Putnam's study of democracy in Italy, 'Democracy Works' 1993, was the starting point for a wide array of Social Capital research, explaining everything from why Swedish National Tax Board manages to collect 98.7% of all taxes while their Russian counterpart only manages to collect 24% of all taxes<sup>1</sup>, to why Palermo taxis don't use the radio control centre and to why Americans nowadays '*bowl alone*'. Besides academics, Prime ministers and Presidents have also found Social Capital important since it is believed to be the remedy for modern societal alienation.

The Social Capital debate has, since Putnam's investigation of America in *Bowling Alone* (2000), been focusing on changes in society that supposedly has made humans less trusting and more alienated. Putnam's findings expose a marked decline in Americans, 'time spent with neighbors', organizational activity etc. during the last 30 years. Putnam's American investigation leaves the impression that modernization per se is detrimental to Social Capital and that we now are less trusting and more alienated than ever before. However, investigations on Social Capital in Sweden (Rothstein 2001), the Netherlands (De Hart and Dekker 1999) and Japan (Inoguchi, 2000) show stable or rising levels of Social Capital, indicating that a decline in Social Capital is not a global trend. Despite these inconsistent research results the consensus among academics, politicians and policymakers is that Social Capital evaporates as societies modernize.

Given the multitude of different interpretations of Social Capital, the question arises to what extent America, Europe and Japan actually differs in terms of trend in Social Capital, or whether the disparity in research results is due to different interpretations or understandings of Social Capital, that emphasizes different groups of people or different settings.

-A communitarian understanding of Social Capital, emphasizing '*Particularized trust*', in local community. '*Particularized trust*' is trust between people who know each other, based on face- to-face relations and direct reciprocity.

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<sup>1</sup> That is 98.7 and. 24% of taxes on registered incomes, hence excluding the 'black' and 'gray' parts of the economy.

-A macro level understanding of Social Capital, emphasizing '*Generalized trust*' among strangers in society. '*Generalized trust*' is trust based on the notion that most people can be trusted, and if any, indirect reciprocity.

In this thesis I will emphasize the division between these two understandings of Social Capital. I also suggest that modernization has two completely different effects on the two dimensions of Social Capital. My hypothesis is that modernization is detrimental to Social Capital based on '*Particularized trust*' and beneficial to Social Capital based on '*Generalized trust*'.

I consider four aspects of modernization to be the most important in relation to trust:

- Material needs satisfaction
- Reduced dependence of family and kin
- Increased reliance on the state and society
- Secularization

These structural aspects of modernization are considered conducive to '*Generalized trust*' and detrimental to '*Particularized trust*'.

I also assume that '*non structural*' aspects of modernization affect trust.

- Equality of income and equality of opportunity.
- Just and fair institutions.
- A successful integration of immigrants

While the intermediate variables are linked to modernization they are dependent on political, institutional or cultural factors and are hence not understood as an integral part of modernization.

Analyzing the comprehensive cross country survey on human values, the World Values Survey, and other country statistics, my intention is to find out whether there exists a relationship between modernization and trust.

## 1.1 Research questions, hypotheses and outline

The theme of this thesis is the effect of modernization on trust. Formulated as research questions: -To what extent can modernization explain differences in levels of trust among

populations in different countries and differences among individuals? -To what extent can political or cultural factors such as equality and fairness of institutions explain variance of trust between populations from different countries and among individuals?

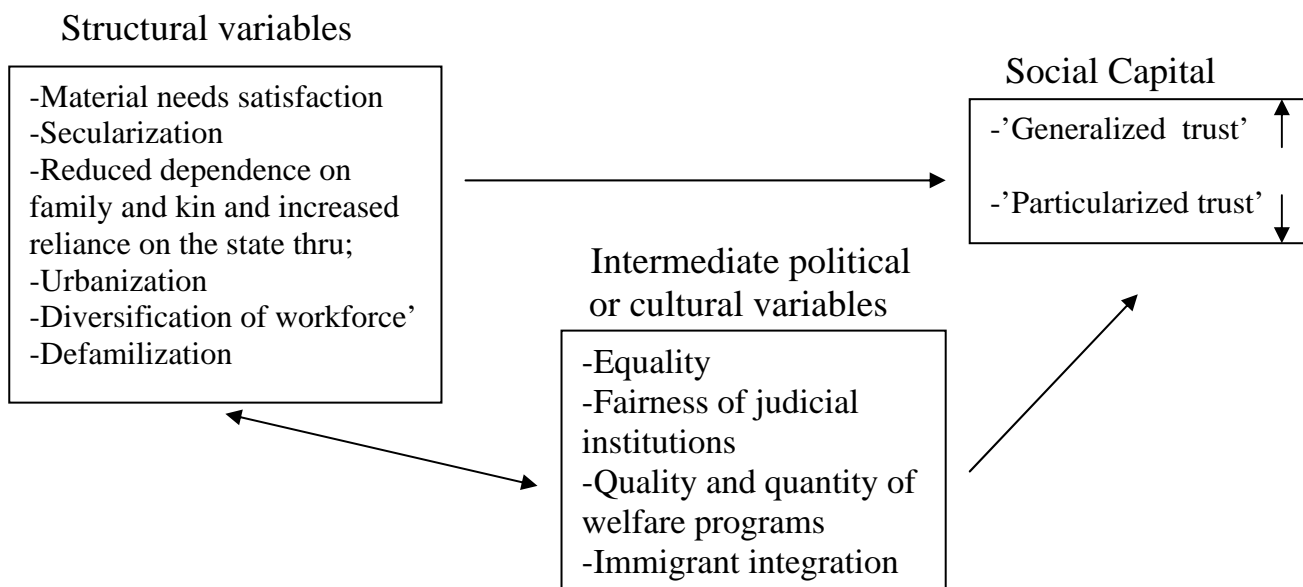
My hypotheses are:

-H1: Modernization is beneficial to Social Capital understood as '*Generalized trust*'. Trust between people without personal relations increases at the societal level.

-H2: Modernization is detrimental to Social Capital understood as '*Particularized trust*'. Trust within neighborhoods, local communities and family and kin decreases.

-H3: The effect of modernization on '*Particularized trust*' and '*Generalized trust*' is strengthened if modernization is accompanied with increased equality, just and fair institutions, a successful integration of immigrants and extensive welfare programs. These intermediate variables accentuate the effect of modernization on '*Generalized*' and '*Particularized trust*'. While hypotheses H1 and H2 propose a direct effect from modernization to trust, H3 takes four intermediate variables into account. The intermediate variables that can be expected to explain variance among equally modernized countries. The intermediate variables are linked to or correlated with modernization but will be analyzed separately since they to a large extent are conditional to cultural, institutional or political factors.

### The effect of modernization on trust



After this introduction and research outline follows chapter 2 reviewing the concept of Social Capital and two opposing schools of Social Capital; the communitarian and the macro level centered. In chapter 2.5, I analyze ambiguities in the mainstream communitarian Social Capital theory. The analysis of the ambiguities of Social Capital theory, forms the basis of the definition of Social Capital as a two-dimensional concept. In chapter 3.2, I explain the function of modernization relevant to my hypotheses; increased dependence on society, decreased dependence on family and kin, material needs satisfaction and secularization.

In chapter 3.3, I analyze the function of my intermediate variables: equality, institutional quality and immigrant integration in advanced industrial countries.

In the methodology chapter 4, I explain why a two folded approach, analyzing both individual and country level data, is chosen. My choice of operationalizations of the dependent and the independent variables are described and explained in chapter 4.2. In chapter 4.3 I discuss the methodological problems using survey data. In chapter A statistical test of the hypotheses is conducted in chapter 5.

-An individual level approach, statistically analyzing a possible link between trust and modernization at an individual level. Data for the individual level analysis is primarily from the World Values Survey.

-A macro level approach, statistically analyzing a possible link between trust and modernization at a macro/ country level.

Data for the country level analysis is primarily official country statistics collected by e.g. UNDP and OECD.

Since the two folded statistical analysis might be difficult to comprehend, a summary of all findings relevant to each hypothesis ends chapter 5

Conclusions are drawn in chapter 6.



## 2. The theory of Social Capital

### 2.1 Introduction

Social Capital has as a popular concept drawn attention from all disciplines of social sciences. The popularity of the theme has indeed been enriching but its popularity has also led to a multitude of ambiguous definitions and some confusion of what Social Capital 'actually' is. Though most scholars agree that a core element in Social Capital is; *the asset that comes from trusting other trustworthy individuals within a group, whether a local community or a whole society.*<sup>2</sup> Social Capital is described as both the glue, as in getting people together, and the oil of society, as in reducing the friction of cooperation (Putnam 2003:23). Groups with strong Social Capital are assumed to have fewer 'free riders' and more trusting individuals and hence enhanced possibilities to solve or at least relieve '*the problem of communal action*', mutual problems that might be solved if everyone trust each others willingness to cooperate (Fukuyama 2000:6f, Putnam 1993:chap.6, Rothstein 2003a:82f). *The tragedy of the commons* (Elinor Ostrom) or social traps are other concepts to describe these enduring societal problems. Bo Rothstein explains the logic of the 'social trap';

*'If everybody cooperates everybody wins. If you don't trust that everybody else also cooperates is it futile to cooperate since the end result is dependent on everybody's cooperation. Thus is it rational not to cooperate if you are not certain that everybody else will cooperate. Conclusion: Efficient cooperation for public goods can only be attained if everybody trusts that everybody trusts. If trust is lacking the 'social trap' closes and everybody loses even though they realize that everybody would gain on cooperation'* (2003:45, Rothstein 2003a:153).

Social Capital is thus decisive when the (i)rational self interest has negative consequences for society at large. In Social Capital studies there is a division between 'communitarian' scholars (Putnam et al.) and macro level centered scholars (Rothstein et al.) These schools differ both in heir focus of attention; emphasizes on community or the wider society, and in their explanation of how Social Capital is created. In broad terms communitarian scholars

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<sup>2</sup> Rose (1999) and Field (2003) goes even further and totally abolishes trust from the definition of Social Capital, then reducing the meaning of Social Capital to be a measurement of organizational activity.

focuses on social networks/ organizational activity and its beneficial effect on local community. In so far as the society level is mentioned, it is understood as an effect of the community level. Macro level scholars on the other hand who do not agree with Putnam's definition of Social Capital, focuses on how government institutions create and nourishes 'Generalized trust' at a societal level. While macro level centered scholars often exemplify Social Capital with civic mindedness e.g. willingness to pay income tax, communitarian scholars are more concerned with organizational activity as such.<sup>3</sup>

## 2.2 Defining Social Capital as trust

Due to the interdisciplinary popularity of Social Capital the concept has a number of different definitions, however many refer to manifestations of Social Capital rather than Social Capital as a norm. The established definition of Social Capital, refers to both manifestations and norms; "*social networks, trust, norms and sanctions which eases cooperation in or among groups*", (Putnam,1993:167) and is criticized for being tautological (Rothstein 2003:95). It explains cooperative norms (Social Capital) by cooperation (organizational activity). Since Social Capital theory tries to grasp what facilitates cooperation, explaining cooperation by cooperation is arguably over simplistic. In other words, cooperation can not be both explanandum and explanans.

In this thesis this thesis Social Capital is defined in accordance with the macro-level centered school as *the norm of trust that promotes cooperation among people*.

The (social) 'capital' allegory derives from sociology and the idea of 'Human', 'Physical', 'Financial' and 'Social Capital'. The term 'capital' can however be misleading when we discuss Social Capital at a societal level since it foremost is a societal and not a personal good. It can also be argued that it is not trust 'per se' that is of interest but rather actual trustful behavior. Yet, I find the norm or the moral of trust a better indicator of Social Capital than actual trustworthiness for several reasons. First, the reason for not behaving untrustworthy or not 'free riding' might not be because of cooperative intentions but because of fear of getting caught and punished. With a rational choice perspective on Social

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<sup>3</sup> Due to the limitations of this thesis I choose not to give an account for the works of the French sociologist Pierre Bourdieu. In his version Social Capital is foremost a personal good, related to the individual's position in society, a personal asset derived from his/hers *habitus*, (similar to 'human capital') rather than a societal good. Nor James Coleman who's primary concern was the personal advantages of Social Capital.

Capital, interpreting Social Capital within the limitations of 'self interest', Social Capital becomes a form of utility-maximizing or law obedience that denounces every moral aspects of Social Capital, then reducing the meaning of Social Capital considerably. A totalitarian state might thru oppression promote an instrumental version of trustworthiness but totalitarian states do not promote Social Capital (see e.g. Dowley & Silver 2002:507ff). Though, not to rule out the importance of law and order, in a context of just and democratic institutions trustworthiness can work as an indication of Social Capital.

Secondly, trustworthiness is relative to what you can afford losing. What individuals are willing to put at risk is usually dependent on what they can afford losing. Since trust must be understood as being relative, most people are not willing to take the risk of cooperating with strangers (showing trust) if the consequence of failed cooperation are decisive. A failed cooperation that would cause starvation in e.g. Niger might cause a slight nuisance in e.g. Norway. Hence, trust as a norm or a 'moral' is much more fragile when people can not afford to be betrayed.

Thirdly, some degree of naivety is beneficial for society. People who continue to trust even after a betrayal are to be preferred over cynical people who takes any form of minor betrayal as a reason to distrust all and everybody. When Social Capital is reduced to the trustworthiness of people, the beneficial effect of naivety is not taken into account.

Fourthly, Trustworthiness and trust are not exchangeable concepts. E.g., in a survey reported in Halpern (2005) there where almost no relationship between actual burglary rates and the perceived likelihood of being a victim of burglary, e.g. did the Portuguese, Belgian and French respondents find it much more likely that they would be victims of burglary within a year, despite that these countries were below average on actual rates of burglary. (Halpern 2005:131) These are the same countries that have among the lowest levels of trust in Western Europe. Hence, trustworthiness is not an optimal indicator of trust.

The origin of trust is a much debated theme. While some scholars understands the ability to trust as primarily a result of the trustworthiness of the rest of society (rational choice theory), other scholars understands trust to be a personal quality, either as a result of socialization in early childhood (Uslaner 2001:11) or as more or less given by ones religion, social class, ethnicity or cultural background (Newton 1999, Putnam 1993, Newton 2004:4).

These conflicting theories of trust are backed by both theories that make sense and convincing empirical findings.

Therefore, if analyzed as a two-dimensional concept, then both theories might be true. According to Eric M Uslaner you trust people you know, strangers and institutions for different reasons. Uslaner differentiates between strategic and moralistic trust.

*'This is trust in people whom we don't know and who are likely to be different from ourselves. Moralistic trust assumes that we don't risk so much when we put faith in people we don't know because people of different backgrounds still share the same underlying values. We can't base trust in strangers on their trustworthiness, because there is no way for us to know whether they are honorable. Moralistic trust provides the rationale for getting involved with other people and working toward compromises.'* (Uslaner 1999:5)

Strategic trust on the other hand is trust in people similar to one self.

*'Strategic trust' applies to people you know and are likely to meet again. Trust in people we know (what I call "strategic trust") helps us decide which stockbroker we use or which electrician we hire. It separates the people to whom we would lend \$50 (those we believe will repay us) from the folks we would decline (either because we suspect they would not pay us back or because we simply don't have any idea whether they would do so). And it may help us decide whom to admit to our bowling league and whom to exclude* (Uslaner 1999:5)

Beyond this dimension, Uslaner argues, is the radius of trust; 'Particularized trust' is trust in people you know while 'Generalized trust' is trust in strangers. Since we lack knowledge of strangers the foundation of 'Generalized trust' lies in moralistic trust. 'Particularized trust' on the other hand is based on knowledge and reciprocity and is hence based on a rational 'strategic' evaluation. Trust in institutions is, according to Uslaner, based upon experience rather than moral. Hence trust in institutions is a form of strategic trust.

*'Trust in institutions, I argue, is similar to strategic trust: It is based upon how well government perform—overall, on the economy, in war and peace, and in maintaining law and order in a society. It is based upon experience, as is strategic trust.'* (Uslaner 2001:3)

Contrary to Rothstein, Uslaner claims that trust in institutions is not the foundation of moralistic trust. Though, Uslaner differentiates between governmental policy and governmental structure, claiming that governments can nourish trust thru the welfare state.

Other scholars, e.g. Russell Hardin (2002) disagrees and claim that trust per se is a rational evaluation of trustworthiness, denouncing any form of moralistic or 'Generalized trust'.

There are reason to assume that the reality is somewhere in between these theories. There is of course a notion of the trustworthiness of strangers. There are strangers in Kingston and there are strangers in a Japanese rural town. Reputation counts, though a person brought up to trust is probably more prone to trust strangers than a person brought up to distrust. However both behave more cautious and are less likely to trust strangers in a setting infamous for its untrustworthiness. According to Rothstein trust is neither totally moralistic nor totally rational, instead he argues for a 'dualistic' approach to understand the incentives of trust;

*'They want to "do the right thing", that is, abstain from opportunistic behavior, but they do not want to be the "only ones" who are virtuous, because there is usually no point in being the only one who is virtuous. As a result of the information that others will only act according to their "myopic" self interest, they are likely to do the same (i.e., "autistic" action). But if the agents have information that "the others" have a normative orientation (or some other reason) that makes it likely that they will cooperate for the common good, the norm based utility function will usually kick in' (Levi 1991)' (Rothstein, 2000:8)*

### 2.3 The communitarian school of Social Capital research.

In *'Making Democracy Work'* (1993) Putnam concludes that the qualitative differences in the Italian democracy's northern and southern part is explained by an unequal distribution of Social Capital which in its part is explained by different degrees of participation in

networks and organizations. The reason for the relatively weak civil society in the southern Italy can, according to Putnam, be traced back to historical circumstance, such as feudalism.

In *Bowling Alone* (2000) Putnam's focus is not on regional differences but on the alarming trend of Social Capital being in decline in the United States. In *Bowling Alone* Putnam explains that American Social Capital is declining because Americans nowadays are bowling alone (not with friends) and spend most of their time watching TV. America's alienation is hence a result of declining rates of organizational activity and declining time spent with family and friends. According to Putnam the observed decline in Social Capital is also explained by a generational effect. While previous generations of Americans were bonded together by wars and poverty younger generations does not seem to need one another or the local community as much as earlier generations did. However, Putnam foresees that 'a palpable national crisis, like a war or depression or natural disaster' would 'restore civic engagement' in America (continued in chap.4.5). In 'Making democracy Work' Putnam defines Social Capital as; "*social networks, trust, norms and sanctions which eases cooperation in or among groups*". After critics pointing out that not all forms of group cohesion necessarily is beneficial for the whole society Putnam refines his theory in *Bowling Alone* (2000). Acknowledging that there might be negative externalities of strong in-group cohesion Putnam now differentiates between 'bridging Social Capital'; '*a sociological WD-40*' that reduces friction of societal cooperation among, and in, heterogeneous groups - and 'bonding Social Capital' '*a sociological superglue*' uniting homogenous groups. (2000:23). While agents of bridging Social Capital, such as e.g. the Red Cross promotes cooperation among a broad spectra of society and does not have any negative externalities Putnam is more ambivalent concerning the societal benefits of 'bonding Social Capital' since it does not only create 'strong in-group loyalty' but may also create 'strong out-group antagonism'(200:23).

Putnam exemplifies this 'dark side of Social Capital' with the Sicilian mafia. A group with strong internal cohesion that makes it suited for collective actions within the group but often on the expense of non-members. This internal cohesion or 'bonding Social Capital' based on personal relations, direct reciprocity and internal dependence does however only create exclusive trust and is beneficial for neither Palermo nor Italy.

This negative effect notwithstanding, Putnam does not dismiss 'bonding Social Capital' as a definitely undesirable form of Social Capital but a form of Social Capital that can be

misused (2000:315f). From his civil communitarian perspective he claims that; ‘both bonding and bridging Social Capital have powerful positive social effects’. According to Putnam it is, in most cases, not possible to separate between including ‘bridging’ and excluding ‘bonding’ Social Capital because networks and organizations usually contribute to both types of Social Capital. Putnam exemplifies with the Afro-American church which ‘bond’ within race but bridges between classes in society (2000:22).

‘*Reciprocity*’ is central in Putnam’s understanding of Social Capital. In *Bowling Alone* Putnam differentiates between *specific reciprocity* which presupposes repeated personal contact i.e. I help you since I expect that you will help me in the future, and *Generalized reciprocity* as in hoping anyone to reciprocate (2000:134f). Even though Putnam describes the societal importance of Generalized reciprocity among strangers, Putnam’s focus on the local community indicates that his theory is primarily based on repeated personal contact (2000 s.21f). Putnam’s original understanding of reciprocity in *Making Democracy Work* does also indicate this community oriented, face to face understanding of reciprocity, see note<sup>4</sup>.

## 2.4 The macro level centered school of Social Capital research.

Macro level centered scholars defines Social Capital as trust among strangers; ‘social trust’ or ‘Generalized trust’. While Putnam et.al. focuses primarily on the local community level, macro level centered scholars such as Bo Rothstein emphasize the macro level, societal effects of ‘Generalized trust’ rather than community based ‘particularized’ trust. Macro level centered scholars do also have a different understanding of the link between civil society and Social Capital. While the ‘society centered’ school explains Social Capital to be caused by a vivid civil society, the ‘macro level centered’ school regards civil society merely as a symptom of abundant Social Capital. Hence Rothstein criticize Putnam’s definition of Social Capital ‘*social networks, trust, norms and sanctions which eases cooperation in or among groups*. Rothstein asks whether a useful definition can include a norm (trust) and cooperative behavior (organizational activity), the very behavior that the theory is supposed to explain. While Putnam claims that there is a spill over effect from

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<sup>4</sup> In *Making Democracy work* reciprocity is given a different meaning. ‘Specific reciprocity’ which refers to ‘*simultaneous exchange of items of equivalent value, as office-mates exchange holiday gifts*’... and ‘Generalized reciprocity’ ‘*...which refers to a continuing relationship of exchange*’.. ‘*that involves mutual expectations that a benefit granted now should be repaid in the future*’. (1993:172)

group to society level macro level centered scholars e.g. Bo Rothstein argue that for organizational activity to have an positive effect, creating bridging not bonding Social Capital, it must organize members from broad spectra of society. Meeting people not similar to you will probable increase your trust of others while meeting people similar to you might have the opposite effect. Rothstein then stressing that many organizations i.e. ethnic religious or nationalistic, has the distinction from the ‘others’ as a driving force and that these organizations create intolerance and exclusivity rather than bridging trust. (Kumlin & Rothstein 2003 s.9, Rothstein 2003a s.166f, 2003 s.16f)

While dismissing the mainstream organizational thesis Rothstein emphasizes the role of governments in creating Social Capital. According to Rothstein et al it is primarily just and fair institutions that create Social Capital (‘Generalized trust’) such as the welfare state and the judicial system etc<sup>5</sup>. When state institutions work impartially and just, they reduce the incentives for corruption and non cooperative behavior among people (Rothstein 2003b:14). Rothstein has lately also been stressing the causal link between equality (income equality and equality of opportunity) and ‘Generalized trust’. In *All for All: Equality and Social Trust* (2005) is Rothstein and Eric M Uslander revealing strong correlations between income distribution (in countries) and ‘Generalized trust’. Contrary to the communitarian school of Social Capital, Rothstein argues that governments can improve levels of ‘Generalized trust’ by getting more active in society not less. This by reducing income inequality and reducing inequality of opportunity in e.g. the labor market and the public education system.

## 2.5. The relation between ‘Generalized’ and ‘Particularized trust’

In *Bowling Alone* (2000) Putnam concludes that levels of Social Capital are declining in the United States. He also foresees that ‘a palpable national crisis, like a war or depression or natural disaster’ would ‘restore civic engagement’ in America. The events of 9/11-2001 in New York and Washington resulted undeniably in a national crisis. After 9/11 Putnam conducted a follow-up survey (first survey in fall 2000) to test the sociological effects of the post 9/11 national crisis. Asking the same people the same questions before and after 9/11

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<sup>5</sup>The destructive effect of a malfunctioned judicial system has on Social Capital is exemplified by referring to the opening scene in Francis Ford Coppola’s epic drama ‘The Godfather’, a scene where Mr. Bonasera, after being let down by the American judicial system, comes to seek help from the mafia boss, Don Corleone. (2003:184ff)



Putnam concludes that American levels of Social Capital were rising after the national trauma; people trusted each other more, had greater faith in the government and were more engaged in community affairs (2002).

Undeniably, a national crisis like 9/11, does have a unifying effect among (some of) its inhabitants, but did not Americans in general also unite against someone or something? This brings us to a crucial, but nevertheless ignored question in Social Capital studies; Social Capital for whom? Whom is the Social Capital supposed to benefit? Which group of people? What is the scope of cooperation? Do e.g. Arab immigrants agree on the claim that intra personal trust and levels of Social Capital has been rising since 9/11 2001? Group cohesion might have made Americans more trusting towards each others, but to what expense? And is it really accurate to claim that the events following 9/11; ‘preemptive wars’ and religious/ ethnic tensions have eased “*cooperation among groups*’ as Putnam defines the outcome of Social Capital (authors underlining) (1993, s.167). Another national crises created by the hurricane Katrina in September 2005 does also shed light on the bridging and bonding forms of Social Capital. The hurricane, which destroyed great parts of New Orleans, did not seem to unite people rather it exposed considerable inequalities in American society. When there was no ‘outsider’ to unite against, there were far fewer signs of unification among Americans.

### 2.5.1 Social Capital for whom?

The personal advantages of being an active community oriented citizen, as described by Bordieu and Coleman<sup>6</sup>, can hardly be questioned, but what about the advantages for the rest of society? Do people, without personal relations, cooperate better and trust each other more if they are ‘joiners’; active community oriented citizens? Putnam claims there is a spin off from trust based on personal relations to trust towards unknown others:

*‘People who have active and trusting connections to others – whether family members, friends, or fellow bowlers – develop or maintain character traits that are*

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<sup>6</sup> Due to the limitations of this thesis I choose not to give an account for the works of the French sociologist Pierre Bordieu. In his version Social Capital is foremost a personal good, related to the individual’s position in society, a personal asset derived from his/hers *habitus*, (similar to ‘human capital’) rather than a societal good. Nor James Coleman who’s primary concern was the personal advantages of Social Capital.

*good for the rest of society. Joiners become more tolerant, less cynical, and more empathetic to the misfortunes of others. When people lack connections to others, they are unable to test the veracity of their own views.... Without such an opportunity people are more likely to be swayed by their worst impulses.’ (2000 s.288f)*

Despite the strong macro level correlation (e.g. comparing Italian regions) between organizational activity and ‘Generalized trust’, that e.g. Putnam presents in *Democracy Works*, this link has yet to be affirmed at an individual level. On the contrary this spin off effect has been contradicted in a number of studies.<sup>7</sup> Organizational activity (or group cohesion) does not seem to render trust among unknown others. To affirm a possible spin off effect active organization members would be more trusting than checkbook members. However a Norwegian study on organizational membership did not affirm any difference between passive and active members. The authors concluded that it was more of a self selection process, that already trusting people joined organization while distrusters were not willing to unite with strangers. (Rothstein 2003b s.16f; Wollbæk & Sælle 2003) Another comparative study (Sweden, USA, and Germany) recognized an increase in trust, but not towards strangers but towards other members of the group (Rothstein, 2003b:16f). As Bo Rothstein argues, for organizational activity to have a positive effect, creating bridging not bonding Social Capital, it must organize members from broad spectra of society. While organizations with a heterogeneous mix of members might have a positive effect on bridging Social Capital, homogenous organization might instead be detrimental to bridging Social Capital. Rothstein then stressing that many organizations i.e. ethnic, religious or nationalistic, has the distinction from ‘the others’ as a driving force and that these organizations create intolerance and a feelings of exclusivity rather than bridging trust (Kumlin & Rothstein 2003 s.9, Rothstein 2003a s.166f, 2003 s.16f). Another question is how seemingly harmless organizations, not based on ethnicity or religion affects Social Capital. Does for instance, as Putnam claims, ‘Free Mason lodges’ contribute to bridging Social Capital; trust among non-members and ‘unknown others’?<sup>8</sup> ‘Whether members of the Free Masons trust each other is rather unimportant in a societal perspective. At the

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<sup>7</sup> Clairborn & Martin 2000; Wollbæk & Selle 2002; Whiteley 1999; Uslander 2002; Stolle 2000; Newton 2002

<sup>8</sup> Putnam is not specifically discussing the ‘Free Masons’ but it’s on the list of organizations showing a decline in membership. Arguably are the Free masons a group with informal power beyond democratic control and with limited access for the average citizens.

aggregated level, comparing nations or regions as Putnam does in Italy, the correlation between organizational activity and ‘Generalized trust’ is strong, but apparently non-existent at the individual level. The disparity between correlations at the individual and macro level indicates that the link suggested by Putnam is spurious. The relationship on the aggregated, nation/ region level does not tell us much about the causal relationship at the individual level.<sup>9</sup> Acknowledging in *Bowling Alone* that ‘Social Capital might work in two ways, Putnam also acknowledges a possible trade-off between ‘bridging’ and ‘bonding’ Social Capital. According to Putnam was ‘the busing project’, the American civil rights movements attempt to improve school integration during the 1960s, detrimental to bonding Social Capital.

*‘, school integration has posed much more sharply the trade-offs between bridging and bonding Social Capital. The busing controversy illustrates this dilemma quite clearly, for both sides in the controversy were fundamentally concerned about Social Capital (though, understandably, no one used that language). Proponents of busing believed that only through racially integrated schools could America ever generate sufficient Social Capital – familiarity, tolerance, solidarity, trust habits of cooperation and mutual respect – across the racial divide. Opponents of busing replied that in most parts of America, neighborhood schools provided a unique site for building Social Capital – friendship, habits of cooperation, solidarity. The deepest tragedy of the busing controversy is that both sides were probably right...Some kinds of bonding Social Capital may discourage the formation of bridging Social Capital and vice versa.’ (2000:362)*

While the quote above indicates that Putnam recognizes a possible trade-off between bonding and bridging Social Capital he does not let this insight influence the rest of his analyses. As mentioned, Putnam finds it problematic to separate between bridging and bonding Social Capital because networks and organizations usually contribute to both types of Social Capital. As I interpret Putnam’s theory, the general rule is a ‘spin off effect’ from community based trust (bonding Social Capital) to ‘Generalized trust’ or bridging Social

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<sup>9</sup> As Rothstein points out in his critic of Putnam’s theory; ‘Statistical associations at the aggregated, or macro, level can only be used as an indicator for where on the micro level a further search might be productive. For a causal connection to be considered extant, one must prove that it also holds at the micro level’ (2004)

Capital (the more you trust members the more you trust strangers see p.6). However this general rule does sometimes (when or why is not explicit) become invalid and instead of a *spin off* we end up with a *trade off* effect. However Putnam does not mention that these two functions of Social Capital (bonding and bridging) rarely work at the same time with the same group in focus. On the contrary there are numerous accounts of the opposite; high levels of trust within a group often profit from the exclusion and distrust of outsiders. Or, in other words; '*cooperation in groups*' often flourishes at the expense of cooperation '*among groups*'. This understanding of trust as a sum zero game, a widely accepted view in sociology, (Fukuyama 1999:2, Gambetta 1993) is however incompatible with Putnam's theory of Social Capital. Uslaner exemplifies bonding Social Capital with religious fundamentalists;

*'Religious fundamentalists who see nonbelievers as heathens are a particularly good example. They will get involved in their communities, but only in their own communities... So Particularized trusters do take part in civic life, but not in the bridging associations that Putnam correctly sees as essential to helping society resolve pressing issues. "Particularized trust" is likely to exacerbate conflicts among different groups since it is based on the core assumption that most people don't share similar values.'* (Uslaner 1999:7f)

Putnam et al does not seem to realize that there is no de facto 'dark side of Social Capital' without defining the group or the society who is supposed to benefit from the Social Capital. Putnam exemplifies the 'dark side of Social Capital' with the Italian mafia, though the mafia type of bonding relations might be considered beneficial in another setting, e.g. within a family or a country. Whether the Social Capital is *bonding* (inclusive) or *bridging* (exclusionary) is to a large extent in the eyes of the beholder, or in other words, it depends on who is defining the group or who constitutes the group. Is it a local community, an ethnic group, a nation or globally.

What is e.g. nationalism but internally 'bridging' and externally 'bonding' Social Capital? That is, bonding in relations to other nationalities. Though, nationalism is also 'bridging' within a nation since it unites total strangers. Apparently this does not only apply to

extreme cases such as in former Yugoslavia but also to more ‘sound’ types of nationalism such as in Norway. According to Norwegian time-series-survey Norwegian nationalism (‘patriotism’ Am. Eng.) increased after the success of the 1994 Lillehammer Olympics. However the increase of nationalism coincided (?) with an increase of attitudes of ethnocentrism and xenophobia.<sup>10</sup>

A community level example of the ambiguity of Social Capital is found in gated communities. Do e.g. the inhabitants of the American gated community have a lot of Social Capital? The level of trust between fellow neighbors is most likely very high. It’s also very likely that they do not trust the outsiders, the ones they have fenced out. Fences and guards have probably made the inhabitants feeling more secure and hence more willing to trust each other. But what about the long term effect for the rest of society? Does fencing in neighborhoods increase the trust *between* neighborhoods? These examples do not indicate ‘*the dark side of Social Capital*’ (Putnam) but rather the relative aspects of Social Capital.

The reason for Putnam’s reluctance to discuss the incompatibility of bonding and bridging Social Capital is that in his theory, the macro level of Social Capital is reduced to being a result of the micro – community- level. Since Putnam et.al. understands local community to be the birthplace of Social Capital he also locates its beneficial societal effects at the community level. Thus the macro level of Social Capital becomes the end result of adding up all communities. However, as mentioned earlier, strong independent communities might also work against unity and cooperation. According to Warren (2001) is the Colombian province of Medellin one of the richest provinces in terms of community organization and Social Capital a la Putnam (in Field 2003:84). Though the internal cohesion also made organized crime possible and very few would argue that Social Capital in Medellin is beneficial for neither Colombia nor its neighbors. It would be unwise not to recognize that in far to many countries, local community unification are not driven by altruistic goals but by ethnically or economically motivated separatism. As exemplified by 9/11, the driving force behind community unification often is to unite against someone. The question is however under which conditions community – group- cohesion becomes a societal good?

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<sup>10</sup> Kolstad, Arnulf, *Lillehammer OL's bidrag til nasjonalisme og etnosentrisme*. Norges teknisk-naturvitenskapelige universitet, Trondheim. Psykologisk institutt. Published in: OL-94 og forskningen, ed R. Puijk

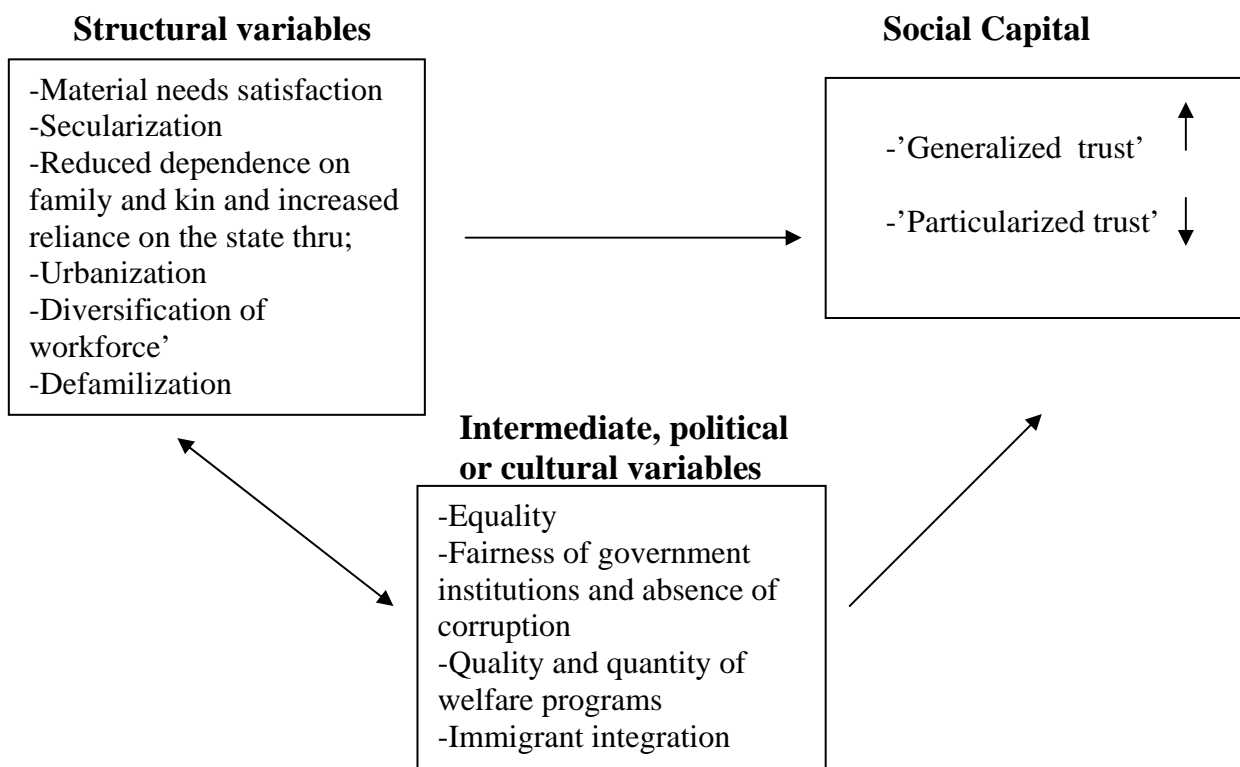
### 3. The hypotheses, modernization and trust

#### 3.1 Introduction

In this chapter I will argue for how I presume that modernization affects trust. I will hence explain the function of modernization relevant to my hypotheses; increased dependence on society, decreased dependence on family and kin, material needs satisfaction, secularization, and integration of immigrants. In chapter 3.3 I analyze the function of my intermediate variables: equality, institutional quality and immigrant integration in advanced industrial countries. Modernization is in this thesis defined as the outcome of industrialization and post-industrialization. Four aspects of modernization are considered to be most important in relation to trust; material needs satisfaction, secularization, the reduced dependence of family and kin and the increased reliance on the state. The fall of family and kin and the rise of the state as the center of reliance and dependence are in its turn due to several aspects of modernization:

- Urbanization and residential mobility
- The growth of the service sector and the diversification of the workforce.
- Female employment
- Female emancipation

#### The effect of modernization on trust



My choices of variables are not a random selection of indicators of modernization but chosen on the assumption that they have a causal effect on trust. While other variables of modernization might correlate with trust, the relationship is only considered causal if and when it can be theoretically explained. It might be argued that this definition of modernization is 'ethnocentric' since it is the 'path' of western countries. However this is not an attempt of a 'Modernization Theory'. While the definition refers to the observed outcome of industrialization and post industrialization it does not suggest the likelihood of pre industrial or semi industrial countries to follow any (possible) 'path' of western countries in all aspects, e.g. democratization.

The distinction between structural and intermediate variables of modernization is an attempt to separate between variables that are considered an integral part of modernization and variables that to a large extent are dependent on cultural or political factors. Though, the structural and the cultural / political aspects of modernization do to some degree interact. E.g. is female employment both an outcome of structural demands of modernization (industrialization) but is at the same time spurred / hampered by political decisions as e.g. the welfare state. Despite the methodological concerns a model separating between structural and intermediate variables is chosen since it increases the possibility to interpret and understand variance in trust among countries.

Modernization generally is understood as societal change, measured at macro level, though I would argue that it can also be applicable to an individual level. At the individual level modernization affects the individual's choices in terms of education, profession, housing, and, indirectly, wage. Modernization does also affect individuals religiosity and values, e.g. values regarding family life. These individual 'choices' are of course not always free choices but determined by socio economic conditions such as class. Though modernization affects classes differently since the upper classes has more opportunities to take part of 'modernity'.

## 3.2 Structural modernization variables affecting trust

### 3.2.1 Material needs satisfaction

-Hypotheses: *'Material needs satisfaction renders an increase in 'Generalized trust and an decreases in 'Particularized trust':*

Linking trust with material needs satisfaction I lean towards the Post-Modernization thesis of Ronald Inglehart. While human primary concern was survival in a traditional society, economic surplus has in industrialized and post-industrialized societies made it possible to demand more from life. Inglehart labels the resulting value changes as 'Post- Material'. Even though these value changes must be understood as gradually increasing over time, Inglehart focuses on value changes since the World War II.

*'Throughout most of history, the threat of severe economic deprivation or even starvation has been a crucial concern for most people. But the historically unprecedented degree of economic security experienced by the postwar generation in most industrial societies was leading to a gradual shift from "Materialist" values (emphasizing economic and physical security above all) toward 'Postmaterialist' priorities (emphasizing self expression and quality of life)' (1997:4).*

With material needs satisfaction comes optimism for the future and a sense of control over ones life, a key determinant of 'Generalized trust', increasing the opportunity and will to trust strangers (Uslaner 2004:12). Since trusting and cooperating with strangers always includes some risk, individuals living on the margin do not dare to venture into the risky business of trusting strangers. Consequently, unsatisfied material needs are correlated with 'Particularized trust' since only family and kin is to be trusted under scarce conditions. According to Uslaner is 'Particularized trust' *'most prevalent among people who: are more pessimistic about the future and their ability to determine their own fate ;'* (2004:12).



### 3.2.2 Increased reliance on society and decreased dependence on family and kin.

Hypotheses: *The reduced dependence of family and kin and the increased reliance on the state renders an increase in Generalized and a decrease in particularized trust. The change in dependence/ reliance is by its turn due to: -Defamilization, -Urbanization, -Diversification of workforce'*

I would argue that modernization is linked with rising levels of 'Generalized trust' because it has increased the need and reason to interact with strangers. As societies grow larger and more complex, the less important gets kinship and the local community. While reliance in traditional societies is and was primarily upon family and the local community, a modern society demands willingness and an ability to rely on and interact with strangers. Modernization splits families, ethnic and religious groups and strengthens the role of the state through several functions.

-Urbanization and the division of the workforce reduce the possibilities to live and work close to one's relatives.

-Higher education brings people together on the basis of skills and interests rather than on the basis of kin and local community affiliation.

-Wage labor and specialization of the workforce brings people together on the basis of skills and interests rather than on the basis of kin.

-Defamilization. Female wage labor has an additional effect as it reduces women's dependence on a male breadwinner, hence weakening the family and strengthening the state as an institution of support.

In addition women are often employed in the service sector that has substituted the family as agent of support, e.g. child care, elderly care etc, hence reinforcing the effect of a weakening family structure. Wage labor among both men and women is spurred by the demands for competitiveness among industrialized countries. Though, since female employment is spurred or hampered by cultural, political or institutional factors, e.g. the welfare state, it can not only be understood as an 'integral part' of modernization.

### 3.2.3 Secularization

Hypotheses: *Religion separates ethnic groups, and believers from nonbelievers, hence, secularization contributes to an increase in Generalized trust and a decrease in 'Particularized trust'.*

Despite the 'bridging' agendas of most religions, religiosity has a 'bonding' or cohesive effect on most disciples and in most communities. Religion separate believers from non believers, 'bonding' believers together and excludes infidels. Since inn-group cohesion often renders suspicion and distrust of strangers there are commonly negative aspects of religious group cohesion. In addition, religious divisions generally follow ethnic divisions, spurring ethnocentrism and group cohesion further. This fact has become obvious in western multi-ethnic countries where ethnic tension has created a new wave of religiosity among Muslim immigrants. It might be argued that some religions are more bonding than others e.g. Judaism and Islam. However, the cohesiveness of religions has generally more to do with a political situation than the religion it self (keeping in mind that world religions has a universal agenda). E.g. is it not unlikely that the protestant Christian communities in 18th century France (Huguenots) where more cohesively bonded than Muslim communities in the Ottoman Empire at the same time. A notable, albeit anecdotic, example of the 'bonding' and excluding effects of religiosity comes from Doglas Caulkins research of the organizational activity in a provincial fjord community in Norway:

*'An incident from my fieldwork will illustrate the point. Introducing myself to the female leader of one of the Christian organizations, I noted that I was interviewing leaders of all the organizations in the municipality. As I enumerate the types of organizations that I was contacting, she looked especially horrified when I mentioned the liberal Youth Association (Frilynt Ungdomslag). 'How can you talk to those people?' she remarked, it wasn't really a question. Growing even more suspicious of me, she then inquired sharply, 'Are you a personal Christian – have you been saved? If not I don't think I want to talk with you'*

For religion to have an excluding effect it must unite someone against someone else, either internally in countries or externally between countries. Hence there are reasons to assume that in countries with a homogenous albeit religious population, we would not find the negative exclusionary effect of a bonding religion.

Nonetheless, as a general trend, religiosity is un conducive to modernization. Analyzing the World Values Survey 1980 and 1990 Inglehart (1997) found that both the percentage attending churches regularly and the percentage saying that 'God is important in their lives' has diminished significantly during the 10 years between the surveys in almost all advanced industrial societies. Inglehart attributes the decline of religious values to '*a rising sense of security which makes the need for the reassurance provided by traditional absolute belief systems less pressing.*' (1997:281)

While identifying a resurgence of religious fundamentalism, Inglehart locates this contradictory trend to less developed countries experiencing upheavals and growing insecurity (1997:284). While neither atheism nor religiosity creates trust or exclusion as such, the likelihood of being a 'Generalized truster' increases if compatriots or foreigners are not judged by their religion or their religiosity.

### 3.3 Intermediate, political or cultural, variables affecting trust

It could be argued that equality; welfare programs, immigration and fair institutions are a direct result of modernization then invalidating them as intermediate variables. However, with the basic definitions of modernization used in this thesis, the intermediate variables should not be understood as an integral part of modernization. While modernization increases the likelihood of welfare programs, institutional fairness, immigration and equality<sup>11</sup>, modernization is not a prerequisite for these conditions. Traditional societies might be highly equal and with fair institutions. E.g. The United States is undeniably a more unequal society than Norway (Gini-index of GDP/Cap.) but USA can hardly be categorized as less modern. Equally, Italian public institutions are considered more corrupt and less fair than e.g. German public institutions (*Freedom House* index), but Italy is not less modern in terms of wealth, size of agricultural sector etc. The quality and quantity of welfare programs

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<sup>11</sup> Modernization affects equality through rising levels of education, democratization. In addition, there are incentives to keep the lower classes poor, reduced when the economy is no longer a sum zero game (the lower classes do not get rich on the expense of the upper classes).

does also differ considerably among equally modernized countries. Instead, equality and the fairness of institutions, immigrant integration and welfare programs are highly dependent on cultural and/ or institutional and/ or political factors. Though, the causal relationship between these variables is difficult to establish, is it e.g. a culture of trust that has affected politics in an egalitarian direction or the other way around, policy decisions that have shaped a culture of trust? It is also difficult to analyze the explanatory value of these variables since culture, political decisions and institution building are interrelated and mutually reinforcing.

### 3.3.1. Equality of income and equality of opportunity

Hypothesis: Increased *equality of income and equality of opportunity generates 'Generalized trust' and weakens 'Particularized trust'*.

Equality, which according to Rothstein & Uslaner (2005:4) is highly correlated with 'Generalized trust', is beneficial to 'Generalized trust' because it renders optimism for the future (ibid). Optimism for the future is understood as one key determinant of social trust. While prosperity as such is important in fulfilling human material needs, there are reasons to consider that also the distribution of wealth matters, hence assuming that the relation between prosperity and optimism is relative. According to Rothstein and Uslaner 'Generalized trust' is causally related to equality for two main reasons.

*'Optimism for the future makes less sense when there is more economic inequality. People at the bottom of the income distribution will be less sanguine that they to share in society's bounty. How well the country is doing collectively, rather than how well any of us is doing individually, leads to changes in 'Generalized trust' (cf. Kinder and Kiewiet 1979). 'Second the distribution of resources plays a key role in establishing the belief that people share a common destiny and have similar fundamental values. When resources are distributed more equally, people are more likely to perceive a common stake with others. In highly unequal societies, people are likely to stick with their own kind. Perception of injustice will reinforce negative stereotypes of other groups, making social trust and accommodation more difficult (Boix and Posner 1998:693)' (Rothstein & Uslaner 2005:4).*

Inequality /equality have also an affect on trust via its effect on crime. Inequality feeds crime for several reasons. In strict hierarchic societies, with limited social mobility, crime might be the only feasible way to leave the state of poverty. Crime might also be seen as righteous by individuals feeling they have been exploited. Since 'Robin Hoods' perceive they behave righteously, they do not feel morally obliged by any law.

Another behaviorist explanation by Gillian (1996) is that violent crime often is triggered by '*minor incidents of 'disrespect' or insults to self-esteem or dignity. An individual whose self-esteem and dignity have already been eroded by low social status is particularly vulnerable to such insults. Inequality therefore has its impact by exaggerating social status differentials and undermining the relative dignity and self-esteem of the have nots.*' (in Halpern 2005:132f). According to Halpern is crime, or the perception of it, strongly correlated with trust (Halpern 2005:chap.5) However I find it somewhat tautological to explain abundance or lack of Social Capital by crime since crime in many respects is a symptom of the lack of Social Capital.

### 3.3.2. The quality and quantity of welfare programs

Hypothesis: *An extensive and universal welfare state is conducive to 'Generalized trust' and detrimental to 'Particularized trust'.*

The type and size of the welfare state is related to trust for several reasons.

Firstly, the welfare state; reduces the importance of family and kin, taking on tasks that used to be done by family or the local community, spurring migration and female employment. Female employment and female emancipation empowers women and reduces women's dependence on a male breadwinner, hence weakening the family and strengthening the state as an institution of support. In addition women are often employed in the service sector that has substituted the family as agent of support, e.g. child care, elderly care etc, hence reinforcing the effect of a weakening family structure.

Secondly, the welfare state reduces inequality. Though to what extent the welfare state reduces inequality and substitute family is due to the quality (type of welfare state) and quantity of welfare programs. The size and quality of the welfare state is in its turn

conditional to political, institutional and possibly cultural factors. At one end is 'the night watchman state' which only supports the most fundamental rights of law and order, at the other end is the Scandinavian welfare state which supports, or depending on ones ideology, intervenes '*from cradle to grave*'. According to Bo Rothstein it is not only the size of the welfare state that matters, but also the quality. Rothstein claims that simple redistribution of income, as in the liberal welfare state, is not the most efficient way to reduce inequality and improve levels of trust in society. While one would assume that simply taking from the rich and giving to the poor would be the most efficient way to increase equality, Rothstein argues that this is not the case. According to Rothstein is the universal welfare advantageous in reducing inequality, for several reasons;

- While taxes are proportional or progressive, services or benefits are nominal, i.e., you get a certain sum or a certain type of service. People do not get more out of the system because they earn more. This means a considerable redistribution from the rich to the poor.

- While citizens in a universal program are claiming his/ hers rights to benefits, citizens in a selective program, with means-tested benefits, might be chosen to 'deserve' a benefit. Then demarcating the poor 'receivers' from the 'contributors' of society, stigmatizing the poor. This in contrast to the universal system where everyone is using the same welfare programs.

- Means-tested programs presuppose some degree of discretionary decision-making when a 'street level bureaucrat' decides who is eligible for benefits and who is not. The bureaucrat's position to interpret laws and regulations creates suspicions that 'procedural justice' has not been followed and that the help seeker has been treated unfair. Hence, means tested systems can be, or perceived to be, discriminating, creating disbelief and distrust.

- A universal welfare state is not only less stigmatizing but also much more approved by the middle class 'contributors' since they also reap the benefits of the universal systems such as public schools, free healthcare etc. If the middle class is only contributing and not using the welfare system it is likely that the receivers of benefits are seen as 'free riders'. In short a

universal welfare state is reducing the feeling of 'we and them' in society. (Rothstein 2005, 7ff, 2003c:233, Kumlin&Rothstein, 2003:12f)

Thirdly: Universal school/ daycare programs etc. do not segregate social classes or ethnic groups' as much as private alternatives (Rothstein 2005:26). Though, whether the middle/upper classes actually use these public programs is dependent of the quality of these institutions. In many countries e.g. USA, Argentina etc. public funded schools are in practice only for the poor. In spite of a growing segregation based on housing, the (former) more or less mandatory public school systems in Scandinavia is probably an important reason for high levels of Social Capital in these countries. As some scholars emphasize that meeting people similar to you in an organizational setting does not create bridging trust, the same must go for schools. Only meeting sons of lords and nobles at a British boarding school does probably not contribute to trust of ordinary Britons. Also, only meeting member of your own ethnic group, in e.g. a religious school, is probably equally devastating for 'Generalized trust'.

Though, not all scholars agree that the welfare state contributes to Social Capital. In the market liberal development theory, where Social Capital is synonymous with a vibrant civil society that opposes a suffocating state, an extensive welfare state is considered detrimental to Social Capital. According to this argument, the welfare state "crowds out" informal networks and NGO:s that used to take responsibility for citizens. By 'crowding out' civil society the welfare state reduces the mutual reliance and dependence between family and community members. Consequently, a universal welfare state, as the Scandinavian, where, they claim, solidarity is reduced to paying tax, weakens the bond and network between people (Fukuyama 2000b:6, Rothstein 2003c:223). According to the sociologist Alan Wolfe, the Scandinavian welfare state; '*squeezes families, communities, and social networks.*' (Rothstein 2003d s.3). The liberal critique of extensive welfare programs is based on a communitarian understanding of Social Capital where 'Particularized' rather than 'Generalized' trust is the basis of Social Capital. There are reasons to assume that parts of the critique is correct, extensive welfare states can, in some aspects, 'crowd out' family and kin as the basis of reliance and dependence, but whether that is desirable or not is primarily a question of ideology. Crowding out family and kin can

arguably fuel alienation, but on the other hand also reduce negative aspects of 'Particularized trust' such as 'amoral familism' of mafia like groups.

### 3.3.3. Just and fair government institutions

Hypothesis: *Fair and trustworthy government institutions and the absence of corruption nourishes 'Generalized trust' and weakens 'Particularized trust'.*

According to Rothstein there are several indicators of the importance of the state in the formation of Social Capital, e.g. stable democracy, a low degree of corruption and economic equality<sup>12</sup> (Rothstein 2003a s.173). The strongest indicator is however people's evaluation of justice security. Rothstein refers to a Swedish investigation<sup>13</sup> where confidence in democratic institutions and the justice system, like the police and courts, was strongly positively correlated to high levels of 'Generalized trust'. Based on these empirical findings Rothstein concludes that 'Generalized trust' is supported in countries with 'procedural justice' and the rule of law. If people trust that 'free riding' and law offenders get caught, it increases the propensity to trust strangers. Institutional quality is positively correlated to 'Generalized trust' insofar as it has the capacity to monitor and punish free-riding and the capacity to generate trustworthiness by its own trustworthiness. Bo Rothstein explains why Institutions of law and order are crucial in sustaining and creating trust;

*'In a civilized society, institutions of law and order have one particularly important task: to detect and punish people who are "traitors", that is, those who break contracts, steal, murder and do other such non-cooperative things and therefore should not be trusted. Thus, if you think (i.e., if your cognitive map is) that these particular institutions do what they are supposed to do in a fair and effective manner, then you also have reason to believe that the chance people have of getting away with such treacherous behaviour is small. If so, you will believe that people will have very good reason to refrain from acting in a treacherous manner, and you will therefore believe that "most people can be trusted."' (2000:492)*

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<sup>12</sup> Democracy (Inglehart 1999), corruption (della Porta 2000), equality (Uslaner 2002) i Rothstein (2003a)

<sup>13</sup> SOM-institutet (Samhälle Opinion Massmedia) Göteborg



A just legal system will reduce transaction costs, making trust less risky. The more experience people have with compliance, the more likely they are to have confidence in others’.

Institutional quality might however be dubious as an explanation for trust or the lack of trust, the causal direction is difficult to determine. Is corruption and institutional ineffectiveness a sign of weak ‘Generalized trust’ or does corruption and ineffective institutions create distrust? I leave this question open to my analysis.

### 3.3.4. Integration of immigrants.

*Hypothesis: A successful integration of immigrants is conducive to ‘Generalized trust’ and is detrimental to ‘Particularized trust’.*

Immigration or migration affecting levels of societal trust is by no means a new phenomenon. A century ago someone from the neighbor village could be deeply mistrusted because of a slightly different accent. Today many people distrust strangers from other countries and continents. The effect of immigration on trust is to a large extent conditional to the success or failure of integration of immigrants. Integration has in this sense two functions, first it affects immigrant perception of being discriminated, and secondly it affects how the majority population perceives immigrants. In short, a successful integration of immigrants reduces the notion of ‘us vs. them’ in society. As residential mobility is understood to be detrimental to Social Capital so is also heterogeneity by and large assumed to create distrust (Halpern, 2005:262). Again we have to separate between Generalized and ‘Particularized trust’ and we have to define the group affected. While diversity is a prerequisite for ‘Generalized trust’, as it creates the opportunity for it, diversity can also lead to tension between groups and as such increase ‘‘Particularized trust’’ on the expense of the ‘Generalized trust’. According to Uslaner diversity breed tolerance in cities with low levels of residential segregation (Uslaner soc.handbook:18f). Geographical isolation, on the other hand, may breed in-group identity at the expense of the larger society, hence increasing the level of ‘‘Particularized trust’’ and most likely decreasing the level of ‘Generalized trust’. Though, since residential segregation is more of a rule than an exception in many new immigrant countries the net effect of immigration is conditional to factors as housing policy, citizenship policy, language and education policy, the labor market, historical, cultural or religiously rooted factors, such as the openness of the majority

population towards immigrants and the openness of immigrants towards the majority population. Employment is considered to be the most important aspect of integration. While having a job only is one aspect of integration it is an indicator of many other aspects of integration e.g. language proficiency, discrimination by the majority population, cultural differences etc. Employment among immigrants is however not only an effect of integration it has also a strong and independent effect on integration. Employment among immigrants creates spaces for interaction enabling diversity and mutual understanding, it increases language skills, it creates a sense of participation in a 'common project' among immigrants, it lessens the perception among the ethnic majority that immigrants are 'free riders', it diminishes social misery and hence levels of crime among immigrants, making them more trustworthy in the eyes of the ethnic majority population. It can however be argued that employment among immigrants not only is related to integration as such but also related to labor market policies, e.g. minimum wages and job security. Though, no matter the reason for immigrant unemployment, employment as such creates integration while unemployment creates prejudice, discrimination and social misery, hence employment is the most crucial aspect of integration and also a preeminent measurement of integration. However, not only the ethnic majority discriminates, petty entrepreneurs' belonging to an ethnic minority tends to prefer to employ people from their own ethnic group, e.g. the Chinese minority in SE Asia. Hence, some of the beneficial aspects of employment are lost in these ethnic homogenous workplaces. While I do not have the possibility to control for ethnically homogenous workplaces, the number of employees in these 'ethnic workplaces' is assumed to be relatively small in a 'western' setting.

## 4. Methodology

### 4.1 Introduction

To test my hypotheses I have chosen a two folded approach:

- An individual level approach, analyzing a possible link between trust and modernization at an individual level.
- A macro level approach, analyzing a possible link between trust and modernization at a macro/ country level.

The reason for a two folded approach is that I presume that the process of modernization is applicable to both a societal and an individual level. In other words, the process of modernization affects both individuals and society. People live in modern/ traditional societies and within these societies some people live more modern lives while others lives more traditional lives. At the individual level modernization affects the individual's choices in terms of education, profession, housing, and, indirectly, wage. Modernization does also affect the individual's religiosity and values (see Inglehart 1997). While it might be considered controversial to rank the modernity of professions , I presuppose that some professions are more modern and diverse since they to a higher extent brings people together on the basis of skills and interests rather than on the basis of kin and local community.

In this thesis I will hence investigate both the effect of individual modernity and the effect of 'societal modernity'. Some variables of modernity in this thesis are applicable to both macro and individual level, e.g. I find it likely that both the individual's personal wealth and the wealth of the society around the individual have an effect on the individuals trust. The intermediate variables are only applicable to a macro level, e.g. equality makes sense, only in relation to others. For this reason different variables will be used in the macro and the individual level analyses. Hence, there is no 'model' that catches the whole hypothesis that can be tested in one statistical analysis. However, adding up findings from a logistic regression on individuals, a linear regression and correlations (scatter plot's) on country variation I will be able to draw some conclusions on the relation between modernity/ intermediate variables and trust.

The question of causality might be too complex to be sufficiently dealt with in this thesis. E.g. is 'Generalized trust' a result of equality, or were already existing high values of trust a prerequisite for creating an equal society. In this thesis I do not expect to answer the question of line of causality but to investigate how valid a modernization hypothesis is in relation to the alternative explanations of the origins of 'Generalized trust'/ Social Capital such as; organizational activity theory, institutionalism theory, culturalism theory.

## 4.2 Data

At the individual level I have analyzed the 1981, 1990 and 2000 wave of the World Values Survey<sup>14</sup>. In order to operationalize 'Particularized trust' I was tied to the 1990 survey. Since the country means of 'Generalized trust' are relatively constant during the 10 year span between the surveys I do not find the use of two different surveys problematic. In the 1981 WVS I only analyzed the country means of 'Generalized trust'.

Since my hypotheses concern changes of trust levels over time it would naturally be preferable to have time series data on levels of trust and modernization variables. Though, the 20-year span between the first World Value Survey (1980) and the last survey of 1999/2000, is far too short to explain any effects of modernization. In the absence of useful times series data I have to compare countries at different stages of modernization, postulating that my variables of modernization indicate stages in the modernization process. Such extrapolation of data can of course be questioned and modernization is by no means a linear process nor path dependent, though the general process of modernization has proven to change peoples values in predictable directions, see e.g. Inglehart's '*Modernization and Postmodernization*' (1997).

In the macro level analysis I analyze the variation in trust and modernization among countries, using aggregated individual level data from the World Values Survey (WVS), International labor organization, OECD, expert evaluations and official country statistics on modernization, the welfare state, equality, corruption, secularization and unemployment. Some of the aggregated data is collected from *State of Nations*, -*The World Database of*

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<sup>14</sup> The WVS is a cross-country project coordinated by the Institute for Social Research of the University of Michigan, under the direction of Ronald Inglehart. Each wave carries out representative national surveys of the basic values and beliefs of individuals in a large cross-section of countries.

*Happiness*<sup>15</sup> and was not acquired by myself. However, the validity of the data from this database has been checked obtaining the original source.

#### 4.2.1 Operationalization of ‘Generalized trust’

‘Generalized trust’ is in this thesis operationalized by the World Value survey’s questions on trust; ‘*Generally speaking, do you say that most people can be trusted, or that you need to be very careful in dealing with people?*’ -Yes, most people can be trusted or –No, you have to be careful dealing with people. Though there are reasons to scrutinize this standard operationalization of ‘Generalized trust’? The first doubt is what the WVS questions actually measures? A rational evaluation of the trustworthiness of people in the society the respondents live in, expressed as; -*My experience is that most people are honest/ dishonest!* or rather a statement about their character? -*I am a trusting and positive person!/ I am not a naive person!*. Nevertheless, both connotations grasps Social Capital. The survey questions are also dubious since it is up to the respondent to define who these ‘most people’ are. Is it people who the respondent regularly meet, have met, or is it total strangers? Is it people from his/ hers; hometown, citizens of the same province/ country/ or ethnic group? According to a study on Social Capital in Eastern Europe, the Roma people of Bulgaria where one of the most trusting groups in East European countries, in fact more trusting than the majority Bulgarian population. At least a high proportion of them said that ‘most people can be trusted’ (Dowley&Silver 2002:518). This is surprising since discriminated minorities usually does not trust the majority population. The surprisingly high trust of the Roma people might indicate that the question could be ‘misinterpreted’ in the sense that it does not always reveal ‘Generalized trust’ as trusting strangers. However, it can also be explained by context specific circumstances. In this direction point results from a factor analyses, conducted by Eric M. Uslaner, of the 1996 Metropolitan Philadelphia survey. The factor analyses of the survey, that includes more than a dozen questions about whom (or what) people trusted, indicated that the standard WVS question on trust actually measures trust towards strangers and does not ask people to look back at their experiences. Uslaner found three clear dimensions, one for strangers (people you meet on the street, people who work where you shop), another for friends and family (people at your place of worship, at your

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<sup>15</sup> Veenhoven, R., *World Database of Happiness*, Erasmus University Rotterdam. Available at: <http://worlddatabaseofhappiness.eur.nl> Assessed at: (13.06.07). Apart from its original sociological focus this database contains data on a multitude of social science topics.

club, at your job, your boss, and your family), and a third for government (schools and city, state, and federal governments). The standard question on trust loaded strong on the stranger factor (Uslaner 2000:10). I find Uslaners findings convincing in a western setting. However since I doubt the universality of his findings, results from third world countries should be interpreted cautiously.

#### 4.2.2 Operationalization of ‘Particularized trust’

Since the World Values Survey does not include any single questions aimed at detecting ‘Particularized trust’, I have combined three WVS questions to single out ‘Particularized trusters’.

-‘*Can most people be trusted?*’

-‘*How much do you trust Norwegians?* (respondents countrymen, trust on a five degree scale in WVS, ‘*not at all*’ to ‘*completely*’ )

-‘*How much do you trust your family?*’ (trust on a five degree scale in the WVS).

Particularized trust is here operationalized as respondents trusting their family and countrymen ‘*completely*’ but at the same time, do not trust ‘*most people*’.

Analyzed separately does neither complete trust of ones family nor complete trust of one countrymen indicate ‘Particularized trust’, though combined with distrust of strangers (not to trust *most people?*) does these variables indicate ‘Particularized trust’.

While 74.9 % of the German respondent in WVS 1990 say that they trusted ‘Germans’ *completely* or *a little*, while only 6% said they trusted Germans ‘*not very much*’ or ‘*not at all*’ <sup>16</sup>. This, in stark contrast to the WVS question, ‘*can most people be trusted*’, were only 33.1% of German respondents said that ‘most people can be trusted’ and 62% meant that you ‘*have to be very careful*’. I interpret this stark discrepancy as respondents understand e.g. ‘*Germans*’ as an identification of ethnicity. Germans seems to trust ‘*Germans*’ understood as ethnic Germans but not ‘*most people*’ whom might be anyone, including foreigners or immigrants.

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<sup>16</sup> WVS question G001: Germany: Trust completely 22,1%, trust a little 52,8, Neither trust or distrust 15,1%, Not trust very much 5,5%, Not trust at all 0,5%.

It can be argued that these respondents rather express xenophobic values, though I would say that xenophobia is a sign of 'Particularized trust'. A person whom is expressing trust towards ethnic countrymen but not towards immigrants is here understood as the opposite of 'a Generalized truster'.

The validity of the operationalization of 'Particularized trust' is partly verified by a correlation indicating a negative link between 'Generalized' and 'Particularized trust' at the individual level in WVS 1990 (chapter 7.1)

### 4.2.3 Operationalizations of modernization

-Material needs satisfaction

Country level:

- Daily per capita supply of calories 1997. (UN-HDR / 'State of Nations'<sup>17</sup>)
- Energy consumption per pp 2000. (International Energy Agency)
- Life expectancy 2000 (UN-HDR/ 'State of Nations')
- Purchasing power per capita 2000. (UN-HDR 2002/ 'State of Nations')
- Television receivers per 1000 pp 1995. (UN-HDR 1998 table 34/ 'State of nations')

Individual level: WVS 2000

V234. During the past year, did your family: Save money/ Just get by/ Spent some savings/  
Spent savings and borrowed money.

V236 Household income 1-10 scale recoded to 1-5 scale (country specific)

-Specialization of the workforce / education and urbanization

Country level:

- Percentage of population living in urban areas. (UN-HDR / State of nations)
- Percentage of the labor force employed in the service sector. (International Labor Organization, ILO)
- Percentage of the labor force employed in the agriculture sector. (ILO)
- Average years of schooling 2000. (UN-HDR / State of nations)

Individual level: WVS

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<sup>17</sup> State Of Nations: Veenhoven, R., *World Database of Happiness*, Erasmus University Rotterdam. All references to 'State of Nations' is available at: [http://www1.eur.nl/fsw/happiness/statnat/statnat\\_fp.htm](http://www1.eur.nl/fsw/happiness/statnat/statnat_fp.htm)

V230. In which profession/occupation do you or did you work?

V226. What is the highest educational level that you have attained?

V229. Are you employed now? (employed, student, housewife, retired, never employed)

V241. Size of home town:

-‘Increased reliance on society and decreased dependence on family and kin’.

Country level:

-Female employment; percentage of women in employment (OECD)

-Gender equality index; % women in parliament, woman's professional participation , women's share of income. (UN-HDR/ State of nations)

-Divorces per capita (UN-DY/ State of Nations).

-Defamilization index , is constructed using a combination of factors believed to influence defamilization , -female labour participation rate relative to male, -maternity leave compensation (percentage of normal pay), -duration of compensated maternity leave (weeks), -average female wage as percentage of male average wage. (Bambra 2004)

Individual level, WVS:

V228. Do you live with your parents?

V107 Do you have children, if yes how many?

V115: ‘A working mother can establish just as warm and secure a relationship with her children mother who does not work’. (Agree/ disagree)

V 116: ‘Being a housewife is just as fulfilling as working for pay’ (Agree/ disagree)

V78: ‘When jobs are scarce, men should have more right to a job than women’. (Agree/ disagree)

V110: ‘A woman has to have children in order to be fulfilled’. (Agree/ disagree)

-Secularization

Country level:

-Percentage of respondents in WVS getting ‘comfort and strength from religion’, country average. (WVS 2000/ State of Nations)

-Percentage of respondents in WVS identifying as a religious person country average.



(WVS 1995/ State of Nations)

-Percentage of respondents in WVS attending religious services once a week or more, country average. (WVS 1995/ State of Nations)

-Percentage Muslim population (Kurian. 1992/ State of Nations)

-Percentage Protestant population (Kurian 1992/ State of Nations)

Individual level, WVS

V197. Do you find that you get comfort and strength from religion?

V185. Apart from weddings, funerals and christenings, about how often do you attend religious services these days?

V186. Independently of whether you go to church or not, would you say you are: A religious person/ Not a religious person/ A convinced atheist

V184. Do you belong to a religious denomination? Which one?

-Intermediate political, institutional or cultural variables

Country level:

- Social Security benefits in percent of GDP 1996. The ILO definition of social Security covers: medical care, child allowances and allowances for illness, unemployment, aged, disablement, pregnancy, invalidity, and war victims. It does not include education, or culture subsidies (ILO/ State of Nations).

- The 'quality' of welfare state is operationalized using Esping-Andersens variables from *The three Worlds of Welfare Capitalism*; 'decomodification index'<sup>18</sup>, 'program universalism'<sup>19</sup> and 'percentage means-tested poor-relief'<sup>20</sup>,

-Gini index of GDP, (UN-HDR/ State of Nations)

-Share of income or consumption of the richest 20% of the population to the poorest 20% of the population (UN-HDR/ State of Nations)

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<sup>18</sup> Unemployment Insurance; -replacement rate, -qualifying period, -duration of benefit, -waiting days -coverage ratio  
Sickness Cash benefit; -replacement rate, -qualifying period, -duration of benefit, -waiting days -coverage ratio  
Retirement Pensions; -minimum replacement rate, -standard replacement rate, -contribution ratio, -qualifying period, -coverage/take-up rate. For details see Esping-Andersen 1990

<sup>19</sup> Degree of program universalism as averaged percentage of population, 16-64, eligible for sickness unemployment, and pension benefits, and degree of equality in the benefit structure as an average for the above mentioned three programs in terms of the ratio of the basic level of benefits to the legal maximum benefit possible. Esping-Andersen 1990 s. 73

<sup>20</sup> Means-tested poor-relief as % of total public social expenditure, Esping-Andersen 1990, s. 73

- Government corruption; Transparency International's Corruption Perceptions Index 2002  
([http://www.transparency.org/policy\\_research/surveys\\_indices/cpi/2002](http://www.transparency.org/policy_research/surveys_indices/cpi/2002))
- Institutional quality 'Index of 1) Voice and accountability (democracy), 2) Political instability and violence, 3) Government effectiveness, 4) Regulatory burden, 5) Rule of Law, 6) Graft based on various sources, among which surveys among businessmen.'  
(IMF / State of Nations)
- Rule of law 1998. 'Aggregation of subjective assessments. Includes indicators which measure the extent to which respondents have confidence in and abide by the rules of society; perceptions of the incidence of both violent and non-violent crime, the effectiveness and predictability of the judiciary and the enforceability of contracts.  
(Kaufmann c.s.1998/ State of Nations)
- Government effectiveness 1998. Aggregation of subjective assessments. Combines perceptions of the quality of public service provision, the quality of the bureaucracy, the competence of civil servants, the independence of civil service from political pressure and the credibility of the government's commitment to policies into a single grouping. The main focus of this index is on inputs required for the government to be able to produce and implement good policies and deliver public goods. (Kaufmann C.S. 1999, World Bank/ State of Nations)
- Corruption in Government 1982-1995. 'Researchers assessment of Political Risk Services (ICRG). The ICRG staff collects political information converting these into risk points on the basis of a consistent pattern of evaluation' (ICRG 1996/ State of Nations).
- Control of Corruption 1998- 'Aggregated indicator, subjective assessments. Measures perceptions of corruption, defined as the exercise of public power over private gain; ranging from frequency of 'additional payments to get things done' to the effect of corruption on the business environment, of measuring 'grand corruption' in the political arena to the tendency of elite forms to engage in 'state capture''. (Kaufmann C.S. 1999/ State of Nations)
- Immigrant integration on labor market. Ratio of, percentage unemployment among immigrants and the whole population. (Calculated from data in van Tubergen 2004)

Individual level:

- Aggregation of question C16 in European Social Survey 2000: Would you describe yourself as being a of a group member that is discriminated against in this country? (Country average)

-Background variables for individual level analysis

V223. Sex of respondent

V225. Age of respondent

### 4.3 Validity of the World values Survey, contextual findings?

In comparative analyses of surveys there is always the question of translation and interpretation. Has '*trust*' the same significance in all languages? Has e.g. the English *trust* the same meaning as the German *vertrauen* or the French, *confiance*? The problem of translation and interpretation increases the further we go from the original context of the survey. In the case of WVS it was originally designed for a western setting by western scientists, hence the applicability of survey questions must scrutinized if to be used in comparative analyses. An example of the complexity of comparative analyzes of the WVS is questions on 'civic ness', *cheating on taxes*. While cheating on taxes justifiably might be understood as 'un civic' behavior in Norway it might be a sign of awareness in a corrupt country where tax payer's money ends up on a Swiss bank account.

Due to the complexity of analyzing trust in different contexts I chose to exclude all developing countries from most parts of the individual level statistical analysis. Though, to give an indication of the effect of 'material needs satisfaction' among developing nations a logistic regression is presented in chapter 5.2.1. Excluding countries does of course reduce the universality of the hypothesis. However including all countries would blur results valid in one setting but not in another. E.g. is education negatively correlated to trust in many developing countries, but positively among developed countries. The effect of education would hence level out in an individual level analysis if all countries were included in the regression. The interpretation of '*most people*' and their trustworthiness is also to some extent contextual (see chapter 4.4.) For people living in a third world rural setting, '*most people*' has probably a totally different meaning than to an urban Japanese. While this

reasoning eventually disqualifies all research based on interpretations of cross country surveys (in the end you do not even know if your wife interprets trust the way you do) I set the limit where results can be interpreted with some credibility to a setting of developed industrial nations. In the country level analysis, developing countries are however included, but results should be interpreted with caution.

Besides the question of interpretation in comparative surveys there is also the question of technical validity. Even though the WVS has been monitored by local academics I find reason to question the validity of surveys in parts of the 'developing world'. Foremost if the interviewed selection actually represents the population? In countries without national registration and without housing addresses it is rather unlikely that a survey institute has managed to receive a representative selection. Due to costs of transportation, remote parts of country, lacking infrastructure, are likely to be underrepresented. People of means are also likely to be overrepresented since they live in cities are literate, and relatively easy to get in touch with. Finding a representative selection is probably most problematic in Sub Sahara Africa.

## 5. Statistical analysis

### 5.1 Outline and introduction

Beginning In chapter 5.2, analyzing the relation between ‘Generalized’ and Particularized trust’ at the individual and the country level, followed in chapter 5.3 by a summary of levels and changes in ‘Generalized’ and ‘Particularized trust’ in the World values Surveys 1980, 1990, and 2000. In the chapter 5.4 I will try to establish whether there exist a link between trust and different aspects of modernization at the individual level (‘individual’ or ‘personal modernization’). The individual level data is analyzed in several logistic regressions, estimating the effect of the modernization and intermediate variables on trust.

Though being an individual level analysis, respondent’s country of residence is included in the individual level regression since ‘country of residence’ is assumed to have an effect on individuals trust that the other variables does not grasp or ‘catch’. A strong independent effect for ‘country of residence’ will then indicate that factors or variables, not included in the regression, plays a role for individuals trust. These variables might be less tangible variables, such as culture.

In chapter 5.5 I will analyze the relation between modernization and trust at a country level. To do this I have collected data on country means for several aspects of modernization and the intermediate variables, estimating the strength of any possible relationships between modernization/ intermediate variables and the two ‘types’ of trust. Correlations between modernization variables and trust are presented as scatter plots.

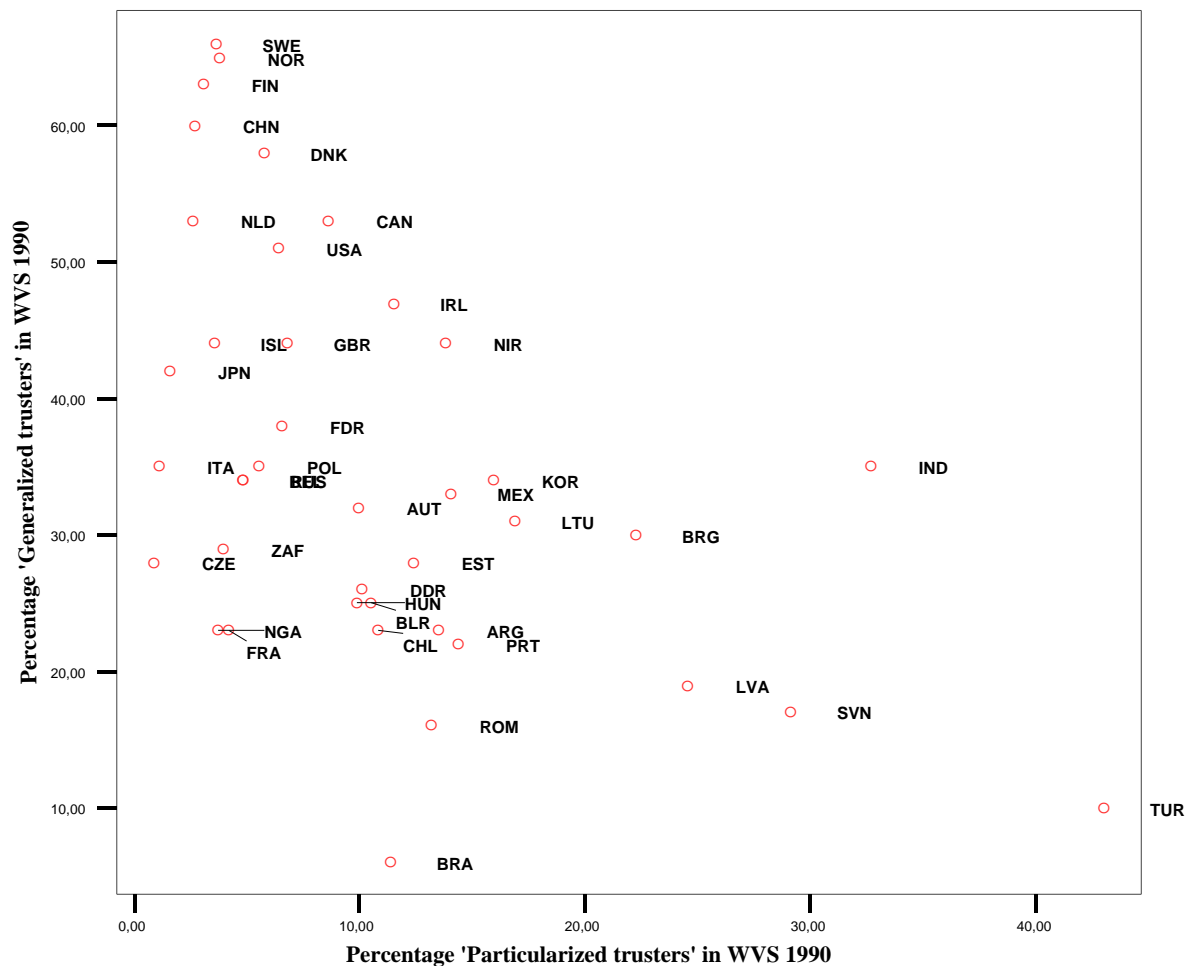
A linear regression analyses with country means of ‘Generalized trust’ as the dependent variable is presented in chapter 5.6 Since it might be difficult to overlook the results from the two level analysis, a summary of the individual and country level results relevant to each hypothesis is found in chapter 5.7.

Interpreting survey results from countries with vastly different culture and political climates is indeed complex. Variables having one effect in a developing country might have the opposite effect in Europe, e.g. among Indian respondents education has a negative effect on trust while it is the opposite in Europe. Including respondents from developing countries in the analysis would blur, or level out effects that exist among developed nations. Analyzing Europe (EU-25, Norway and Switzerland) USA, Australia, New Zealand, Japan, and South Korea the risk of confused results is reduced.

## 5.2 ‘Generalized’ vs. ‘Particularized trust’

To begin with I will analyse the relationship between ‘Generalized’ and Particularized trust’

Generalized and Particularized trust in WVS 1990



‘Generalized trusters’ is percentage claiming that ‘most people can be trusted’ in the WVS 1990. ‘Particularized trusters’ is operationalized as respondents who trust his/ hers family ‘completely’ and trust his/ hers countrymen completely (on a five degree scale) but does not trust ‘most people’ in WVS 1990.

The correlation between ‘Generalized’ and ‘Particularized trust’ is  $-0.365$  pearsons  $r$  at the country level, and  $-0.286$  pearsons  $r$  at the individual level, indicating the ‘trade off’ between ‘Generalized’ and Particularized trust’ predicted in the hypotheses. Countries with a high percentage ‘Particularized trusters’, has generally also a low percentage ‘Generalized

trustees'. Though, as indicated by the scatter plot in figure 1, the variation in 'Particularized trust is greatest among 'developing countries'.

### 5.3 Trends end levels of 'Generalized' and 'Particularized trust'.

Comparing 'Generalized trust' among populations in the World Values Survey 1981, 1990 and 2000 in figure 2, does not instantly strengthen my hypotheses. Of the 21 countries that participated in the 1981 and the 2000 survey, 11 of them show a decline in percentage that claims that 'most people can be trusted'.

A decline of 'Generalized trust':

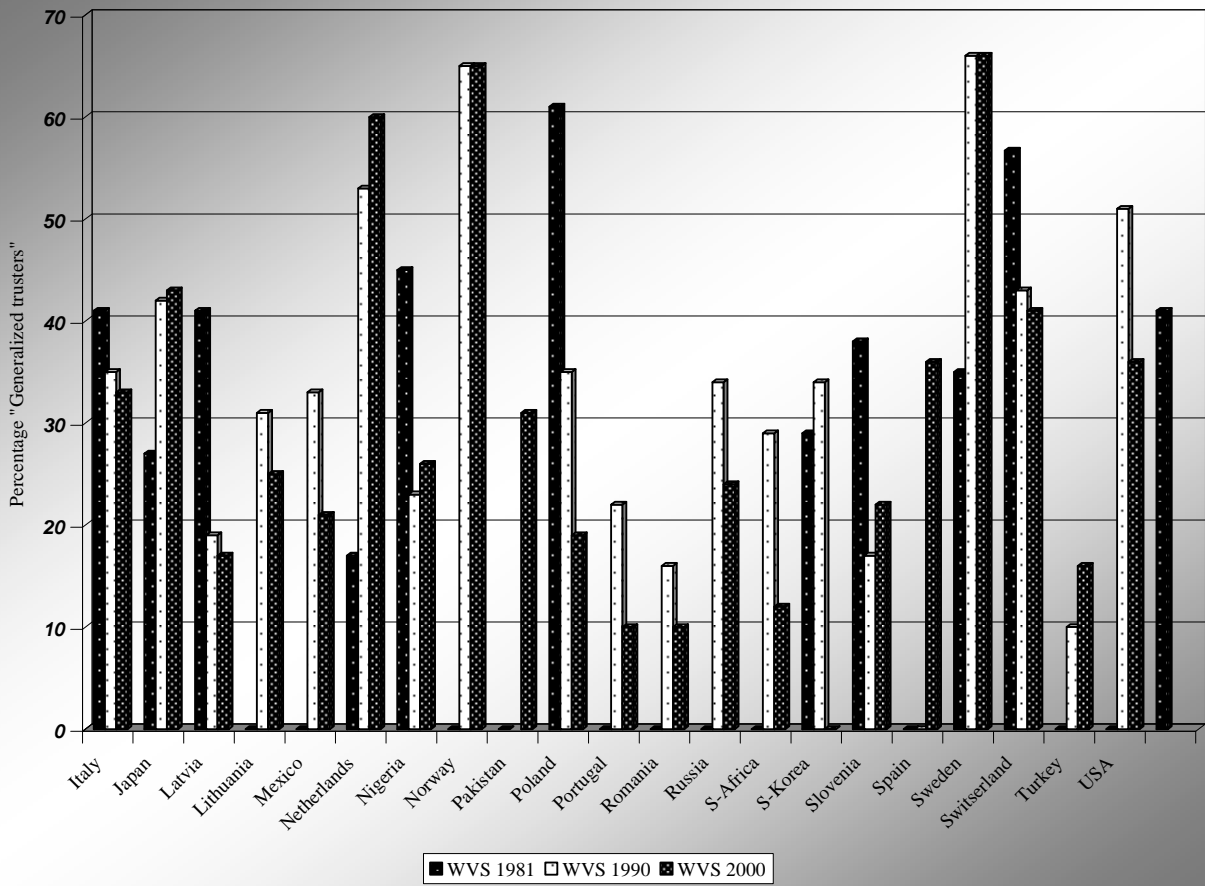
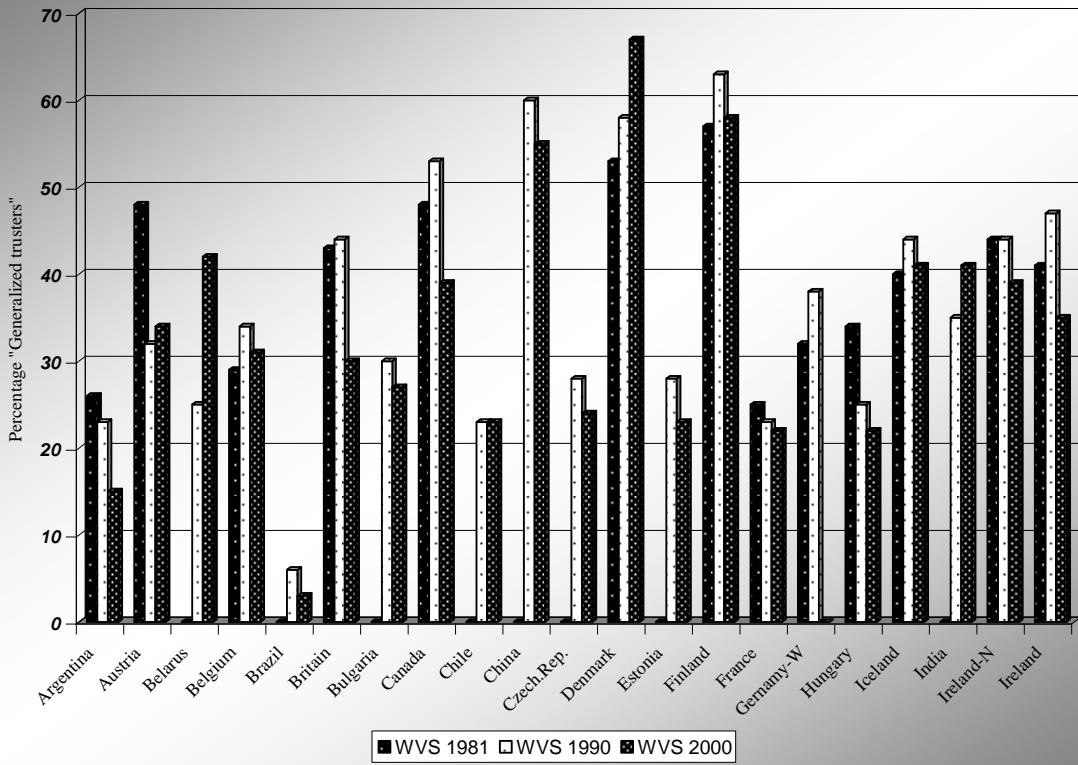
- Pakistan -30% -S-Africa -17% -Austria -14% -UK -13% -Hungary -12% -Argentina -11%  
-Canada -9%, - Ireland -6% - N-Ireland -5% - USA -5% - France -3%

An increase of 'Generalized trust':

- Spain +1% - Finland +1% -Iceland +1%, - Belgium +2% - Japan + 2% -Mexico +4% -  
Italy +6%  
-Sweden +10% - Denmark +14% -Netherlands +15%.

The most dramatic fall in 'Generalized trust' is found among 'developing' countries, former east block countries and Anglo-Saxon countries. Stable or rising levels are found in Japan, the Netherlands and the Scandinavian countries. From 1990 to 2000 there seems to have been a general decline in trust levels, 26 out of 38 countries. As shown in figure 1 most 'high trust' countries are advanced industrial countries. Among the 'low trust' countries we exclusively find developing countries.

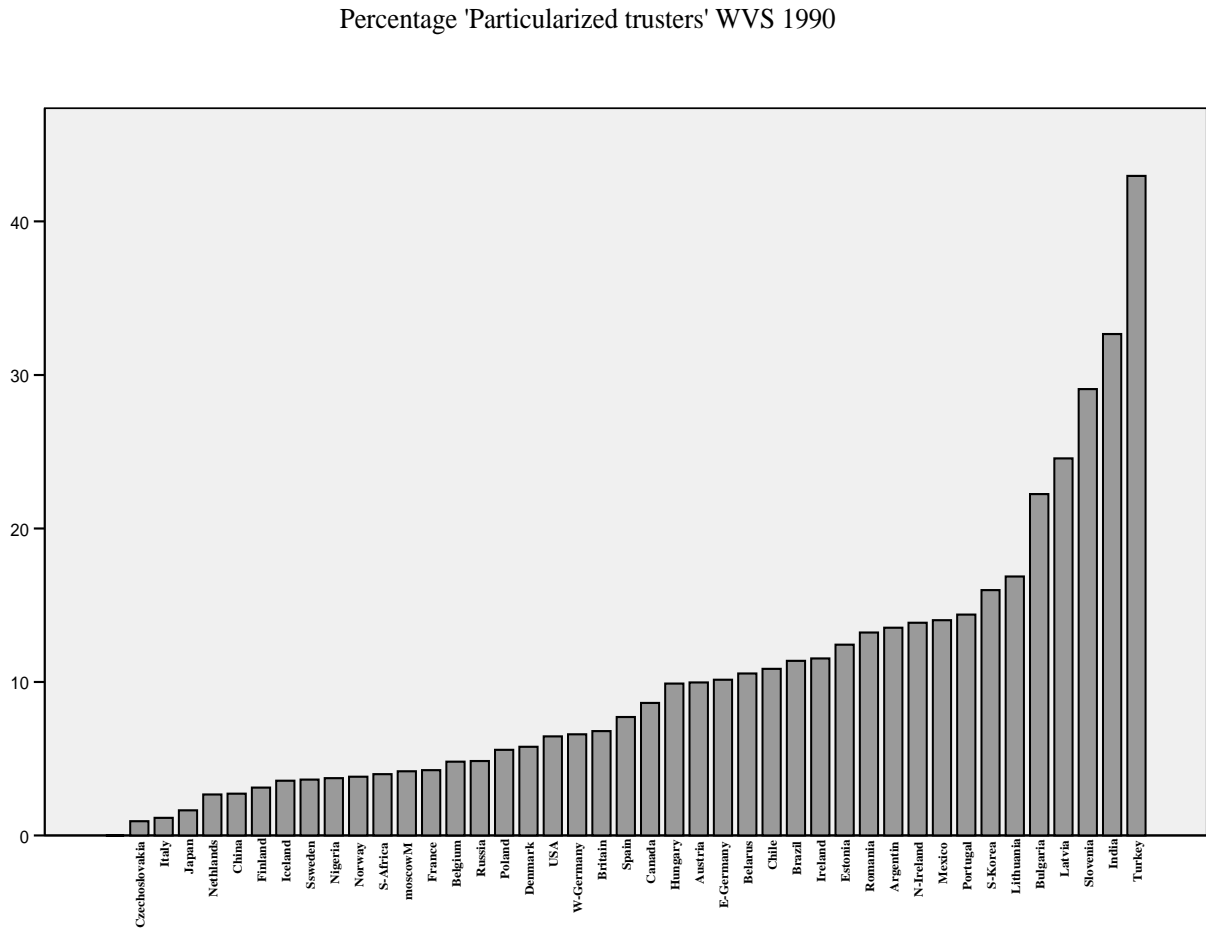
Changes in "Generalized trust" in WVS 1981-1990-2000





Data on 'Particularized trust' is only available from the WVS 1990, hence any possible changes over time can not be analyzed. Figure 3. is an overview of the percentage 'Particularized trusters' in 41 countries.

Figure 3.



As seen from this figure there is a vast variation of 'Particularized trust', from 0,9% in Czechoslovakia to 43% in Turkey. The average of all respondents is 8.3%. In line with the hypothesis are the countries with a high percentage of 'Particularized trusters' either developing countries or East block countries. Apart from the two conflict thorn Irish countries and South-Korea none of the last 18 countries, with most 'Particularized trusters', are advanced industrial countries.

## 5.4 Individual level logistic regression

Analyzing individual level data I have the opportunity to test if or how individual modernization affects trust. Though there is only limited opportunity to test a 'whole model' since some variables in my hypotheses are not applicable at an individual level or at least not possible to operationalize at an individual level. Using the World Value Survey, I do however have the possibility to test:

- 'Material needs satisfaction', operationalized as income.
- 'Defamilization', operationalized as family situation and patriarchal values.
- 'Secularization', operationalized as church attendance and religiosity.
- 'Country of residence', can other factors, attributed to the respondents country of residence, explain the respondents likelihood to trust?

Remaining aspects of the hypothesis; the quality and quantity of the welfare state, institutional quality and immigrant integration are societal variables not directly applicable to an individual level. These variables can however be analyzed indirectly, e.g. -controlling for material needs satisfaction, defamilization and secularization, are respondents living in a certain type of welfare state more likely to be 'Generalized trusters' than others? – are respondents living in equal societies more likely to be 'trusters' than others? Due to a lack of data (to few countries to statistically analyze) the intermediate variables are not analyzed with 'particularized trust' as the dependent variable.

In order to observe the specific effect of certain variables, and to improve readability and overview I will here present several logistic regressions. The first regression estimates the effect of background and modernization variables on 'Generalized trust', controlled for country of residence. In the subsequent regression 'defamilization variables' are added, still controlling for background modernization and country of residence. In order to observe the effect of the variables in certain countries, tables with the effect of country of residence is presented. The difference in odds ratio between the 'controlled result' and the 'uncontrolled result' does also indicate the effect of the variables.

#### .5.4.1 Logistic regressions: ‘Generalized trust’ explained by structural aspects of modernization?

In the regression presented in table 1 indicates the effect of background and modernization variable on ‘Generalized trust’ among individuals.

Sex and age, are background variables, other variables are linked to modernization and part of the hypothesis.

The respondent’s country of residence is included in the regression but presented in the subsequent table to improve readability and overview. See appendix 1 for a guide to interpreting the odds ratio of the logistic regressions.

Table 1. A logistic regression, estimating the effect of background and modernization variables on ‘Generalized trust’, controlled for country of residence <sup>21</sup>.

		Sig.	Exp.(B)
Female	Reference group: Male	,013	,928
Age 15-29	Reference group: 30-49	,000	,791
Age 50-69	“	,000	1,171
Age 70-110	“	,021	1,165
Home town < 2000 inhab.	Reference group: >500,000 inhab.	,033	1,124
Home town 2,000-10,000 inhab.	“	,517	,968
Home town 10,000-50,000 inhab.	“	,651	1,021
Home town 50,000-100,000 inhab.	“	,155	,922
Home town 100,000-500,000 inhab.	“	,638	1,024
No formal education	Reference group: University education	,000	,496
Incomplete secondary school	“	,000	,666
Incomplete primary school	“	,000	,491
Primary school	“	,000	,474
Secondary school	“	,000	,789
Unskilled manual worker	Reference group: Professional work e.g. lawyer	,000	,603

<sup>21</sup> List of countries in Table 2.

Table 1. continued		Sig.	Exp(B)
Farmer/ agricultural worker	“	,008	,794
Skilled/ Semi-skilled manual worker	“	,000	,685
Foreman/ Supervisor	“	,000	,655
Office worker	“	,072	,916
Employer < 10 employees	“	,001	,786
Employer > 10 employees	“	,082	,856
Military/ Security personnel	“	,152	,804
‘Never had a job’	Reference group: ‘Employed’	,111	,849
Retired	“	,119	,925
Housewife	“	,060	,857
Student	“	,375	1,145
Unemployed	“	,028	,818
Income 1/5 (lowest)	Reference group: 3/5 (average)	,000	,828
Income 2/5	“	,000	,851
Income 4/5	“	,005	1,127
Income 5/5 (highest)	“	,000	1,243
N		26596	

From this regression we can conclude that age, occupation, and income has a fairly strong effect on trust among respondents from the 31 ‘developed’ countries. The effect of education is in fact very strong.<sup>22</sup> Size of hometown seems to be less important, though living in a town (< 2000 inhab.) does slightly increase the odds of being a ‘Generalized truster’.

The odds ratio for respondent to be ‘Generalized truster’, all background and modernization variables hold constant is presented in table 2, bellow. Denmark is chosen as the Reference group. Odds ratio is hence in relation to Denmark<sup>23</sup>.

<sup>22</sup> 34,2% of the respondents has an educational level bellow ‘secondary school, hence, the odds ratio for education is not due to extreme values.

<sup>23</sup> Norway has a slightly more ‘trusters’ than Denmark according to the WVS, though lacking data on respondent’s income.

Table 2. A logistic regression, estimating the effect of country of residence on ‘Generalized trust’, controlled for background and modernization.

Reference country ‘Denmark’	Uncontrolled Exp.(B)	Controlled Exp.(B)		Uncontrolled Exp.(B)	Controlled Exp.(B)
Australia	,364 (sig. ,000)	,291 (sig. ,000)	Latvia	,112 (sig. ,000)	,102 (sig. ,000)
Austria	,255 (sig. ,000)	,217 (sig. ,000)	Lithuania	,171 (sig. ,000)	,153 (sig. ,000)
Belgium	,233 (sig. ,000)	,174 (sig. ,000)	Luxemburg	,185 (sig. ,000)	,147 (sig. ,000)
Bulgaria	,185 (sig. ,000)	,143 (sig. ,000)	Malta	,143 (sig. ,000)	,113 (sig. ,000)
Canada	,349 (sig. ,000)	,265 (sig. ,000)	Netherlands	,818 (sig. ,028)	,741 (sig. ,015)
Czech Republic	,171 (sig. ,000)	,141 (sig. ,000)	Poland	,125 (sig. ,000)	,113 (sig. ,000)
Estonia	,364 (sig. ,000)	,119 (sig. ,000)	Romania	,112 (sig. ,000)	,043 (sig. ,000)
Finland	,734 (sig. ,001)	,651 (sig. ,000)	Slovakia	,100 (sig. ,000)	,080 (sig. ,000)
France	,153 (sig. ,000)	,134 (sig. ,000)	Slovenia	,150 (sig. ,000)	,106 (sig. ,000)
Germany	,276 (sig. ,000)	,234 (sig. ,000)	Spain	,295 (sig. ,000)	,260 (sig. ,000)
Greece	,144 (sig. ,000)	,098 (sig. ,000)	Sweden	,983 (sig. ,848)	,810 (sig. ,107)
Hungary	,152 (sig. ,000)	,162 (sig. ,000)	Switzerland	,341 (sig. ,000)	,250 (sig. ,000)
Iceland	,362 (sig. ,000)	,299 (sig. ,000)	USA	,308 (sig. ,000)	,200 (sig. ,000)
Ireland	,296 (sig. ,000)	,267 (sig. ,000)	Great Britain	,224 (sig. ,000)	,218 (sig. ,000)
Italy	,260 (sig. ,000)	,230 (sig. ,000)	N- Ireland	,345 (sig. ,000)	,288 (sig. ,000)

Comparing the controlled odds ratio results with the uncontrolled results in table 2 it is apparent that only a small part of the variation be explained by the background and modernization variables. Country of residence seems to have a strong effect of its own.

-‘Defamilization’:

The next step is to include ‘defamilization’ variables in the regression. Background variables and country hold constant, does family values, values on defamilization or family situation affect the likelihood of individuals being ‘Generalized trusters’?

Table 3. A logistic regression, estimating the effect of defamilization and family variables on ‘Generalized trust’, controlled for country of residence, background, and modernization.

		Sig.	Exp.(B)
Lives with parents? (v.228)	Reference group: No	,982	,999
Have no children (v.107)	Reference group:1-4 children	,108	1,079
Have five or more children	“	,058	1,188
-‘A working mother can establish just as warm and secure a relationship with her children as a mother who does not work’ (v115)	Reference group: <i>Totally agree</i>		
<i>Agree</i>		,945	1,003
<i>Disagree</i>		,000	,827
<i>Totally disagree</i>		,099	,852
‘-Being a housewife is just as fulfilling as working for pay’ (v116)	Reference group: <i>Totally disagree</i>		
<i>Disagree</i>	“	,907	1,008
<i>Agree</i>	“	,102	1,117
<i>Totally agree</i>	“	,950	1,005
When jobs are scarce, men should have more right to a job than women (v.78)	Reference group: <i>Disagree/ neither</i>	,000	,771
-A woman does not have to have children in order to be fulfilled. (v.110)	Reference group: <i>Needs children</i>	,281	,959
N		26596	

As predicted, this analysis indicates a negative relation between patriarchal values, and ‘Generalized trust’. Respondents claiming that men have more right to jobs than women and respondents who do not approve of ‘working mothers’ are less likely to be ‘Generalized truster’. However family situation seems to be irrelevant to ‘Generalized trust’.

- Religion/religiosity:

Background, modernization, and country variables hold constant, does religiosity or degree of secularization affect the likelihood of being a ‘Generalized truster? While the hypothesis links religiosity with ‘Generalized trust’, it does not link the likelihood of trust with any

certain religion. The reason to include specific religions is to see the effect of ‘minority religions’ or ‘sectarian religions’. Due to the bias of western countries in this regression only Catholicism and Protestantism are ‘majority religions’ the other religions in the regression has either very few followers or are foremost represented by immigrants (except Buddhism in South Korea and Japan). Since no Muslim or Hindu country is included in the regression almost all Muslims and Hindu respondents are immigrants. The effect of these religions can consequently be attributed to being an immigrant.

Table 4. A logistic regression, estimating the effect of religiosity/ religion on ‘Generalized trust’, controlled for country of residence, background, modernization and ‘defamilization’.

		Sig.	Exp.(B)
Gets comfort and strength from religion	Reference group: <i>yes</i>	,969	1,002
Religious person	Reference group: <i>Not religious</i>	,364	1,042
Atheist		,270	1,131
Visits ‘Church’	Reference group: Only special holydays/ once a year	,000	1,369
<i>More than once a week:</i>			
<i>Once a week</i>	“	,000	1,297
<i>Once a month</i>	“	,018	1,135
<i>Less than yearly</i>	“	,496	,958
<i>Practically never</i>	“	,230	,942
Roman catholic	Reference group: Not member of any church	,000	,738
Protestant	“	,277	,915
Hindu	“	,945	1,028
Buddhist	“	,167	1,560
Baptist	“	,636	1,241
Jehovah’s witnesses	“	,064	,328
Mormon	“	,669	1,321
Muslim	“	,240	,781
All other religions	“	,000	,689
N		26596	

Opposed to the hypothesis, secularization does not seem to have a positive effect on ‘Generalized trust’ at the individual level. All variables in the regression, except frequency of church visits, suggest that religiosity has no or a very limited effect on ‘Generalized trust’. The positive effect of frequent church visits might be attributed to organizational activity rather than religiosity<sup>24</sup>. However being member of Jehovah’s witnesses sharply reduces the odds of being a ‘Generalized truster’ (significant at a 10% level.)

Finally an overview is presented where the effect of all variables in the regression can be compared with the uncontrolled result. Controlled for; background, modernization, family and religiosity variables.

Table 5. A logistic regression, estimating the effect of country of residence on ‘Generalized trust’, controlled for, background, modernization ‘defamilization’ and religiosity/ religion.

Reference country ‘Denmark’	Uncontrolled Exp.(B)	Controlled Exp.(B)		Uncontrolled Exp.(B)	Controlled Exp.(B)
Australia	,364 (sig. ,000)	,339 (sig. ,000)	Latvia	,112 (sig. ,000)	,105(sig. ,000)
Belgium	,233 (sig. ,000)	,213 (sig. ,000)	Lithuania	,171 (sig. ,000)	,187 (sig. ,000)
Bulgaria	,185 (sig. ,000)	,216 (sig. ,000)	Luxemburg	,185 (sig. ,000)	,225 (sig. ,000)
Canada	,349 (sig. ,000)	,314 (sig. ,000)	Malta	,143 (sig. ,000)	,126 (sig. ,000)
Czech republic	,171 (sig. ,000)	,191(sig. ,000)	Netherlands	,818 (sig. ,000)	,725 (sig. ,088)
Estonia	,155 (sig. ,000)	,135 (sig. ,000)	Poland	,125 (sig. ,000)	,146 (sig. ,000)
Finland	,734 (sig. ,000)	,676 (sig. ,007)	Romania	,061 (sig. ,000)	,046 (sig. ,000)
France	,153 (sig. ,000)	,186 (sig. ,000)	Slovakia	,100 (sig. ,000)	,092 (sig. ,000)
Germany	,276 (sig. ,000)	,290 (sig. ,000)	Slovenia	,150 (sig. ,000)	,150 (sig. ,000)
Greece	,144 (sig. ,000)	,115 (sig. ,000)	Spain	,295 (sig. ,000)	,335 (sig. ,000)
Hungary	,152 (sig. ,000)	,172 (sig. ,000)	Sweden	,983 (sig. ,848)	,971 (sig. ,846)
Iceland	,362 (sig. ,000)	,312 (sig. ,000)	USA	,308 (sig. ,000)	,213 (sig. ,000)
Italy	,260 (sig. ,000)	,307 (sig. ,000)	Great Britain	,224 (sig. ,000)	,220 (sig. ,000)
Japan	,368 (sig. ,000)	,319 (sig. ,000)			

As seen from table 7 the Odds ratio is by large unchanged when controlled for background, modernization, family situation/ values and religiosity<sup>25</sup>. The variation among respondents can hence not be attributed to these variables. So far in the analysis, ‘country of residence

<sup>24</sup> Though, as mentioned in chapter 2.4 and 2.5 the organizational theory has not been confirmed in other studies.

<sup>25</sup> As mentioned above, since there the effect of the model is limited, any possible inter correlation is not investigated.



explains almost all the variance among respondents, indicating that other country specific aspects affect people's ability or willingness to trust strangers.

#### 5.4.2 Logistic regressions: 'Generalized trust' explained by intermediate variables?

Does living in a rich/ poor country, a corrupt country, an equal country or does certain welfare states have any effect on 'Generalized trust'? Background variables, modernization, religiosity<sup>26</sup> and family situation/ values, are included in the regression. Since these socio-economic variables vary considerably among developed/ developing countries two regressions is presented, first one including both developed (western) and developing countries and the subsequent including only developed countries.

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<sup>26</sup> Religiosity is included though the variables on specific religions (protestant, Muslim etc.) is left out.

Table 6. A Logistic regression, estimating the effect of the welfare state, income equality and country income, on ‘Generalized trust’, controlled for, background, modernization ‘defamilization’ and religiosity.

		Sig.	Exp(B)
Liberal welfare state	Reference: ‘Social democratic’ Welfare State	,000	,682
Conservative welfare state		,000	,393
Mediterranean welfare state		,000	,404
None defined or no welfare state		,000	,418
Low income country	Reference: “High income country”	,000	,342
Lower middle income country		,000	,446
Upper middle income country		,000	,580
Upper medium equality country	Reference: High equality country	,000	1,492
Lower medium equality country		,353	,962
Low equality country		,000	,515
Medium low corruption country	Reference: Low corruption country	,463	1,034
Medium high corruption country		,000	1,185
High corruption country		,026	,904

In line with the hypothesis the social democratic welfare state is conducive to ‘Generalized trust’. Though, with only four ‘social democratic welfare states’ there is a problem of a small ‘N’ (to few countries to compare). Wealth has also a fairly strong effect. Opposed to the hypothesis, the odds ratio of ‘Generalized trust’ is higher if the respondent lives in an “Upper medium equality country” than a “High equality country”. A probable reason for this is the high income equality of former communist countries, countries with very few ‘Generalized trusters’. Somewhat surprising are there no link between corruption and ‘Generalized trust’. Presumably this lack of link between corruption and ‘Generalized trust’ can be attributed to corrupt Asian countries with many ‘Generalized trusters’. If this is a fact, these ‘outliers’ can be identified in scatterplots presented in the country level analysis. To see the effect without outliers, a regression without developing nations is presented.

Table 7. A Logistic regression, estimating the effect of the welfare state, income equality and country income, on ‘Generalized trust’, Controlled for, background, modernization ‘defamilization’ and religiosity. ‘Developing countries’ excluded.

		Sig.	Exp (B)
Liberal welfare state	Reference: ‘Social democratic’ Welfare State.	,000	,450
Conservative welfare state		,000	,357
Mediterranean welfare state		,000	,589
None defined welfare states		,000	,169
Low income country <sup>27</sup>	Reference: “High income country”	-	See note 29
Lower middle income country		-	-
Upper middle income country		,000	3,376
Upper medium equality country	Reference: ‘High equality country’	,457	1,050
Lower medium equality country		,357	,922
Low equality country		-	-
Medium low corruption country	Reference: ‘Low corruption country’	,000	,711
Medium high corruption country		,000	,487
High corruption country		-	-

When developing and former communist countries<sup>28</sup> are excluded from the regression there is a strong link between low corruption and ‘Generalized trust’. Opposed to the hypothesis respondents from ‘Upper medium income countries’ are much more likely to be ‘Generalized trusters’ than respondents from ‘High income countries’. On explanation for this is that there is a degree of ‘diminishing returns’ in the relation between ‘need satisfaction’ and ‘Generalized trust’. Among respondents from these 31 ‘developed’ countries it is indeed likely that at least their basic ‘needs’ are satisfied, hence when an individuals ‘material needs’ are satisfied, any further increase in wealth does not increase the likelihood of being a ‘Generalized truster’.

<sup>27</sup> The scales on income, corruption and equality are made on the basis of both ‘developing’ and ‘developed’ countries, since no ‘developed countries’ falls in the extreme categories, e.g. ‘low income countries’, there are empty spaces in this table.

<sup>28</sup> Though, the new EU countries from Eastern Europe are included in the regression.

### 5.4.3 ‘Logistic regressions: ‘Generalized trust’ among individuals from developing countries explained by ‘material needs satisfaction’?

As mentioned is there a risk of confused results when developing countries is included in the statistical analyses. Though, since it might be anticipated that ‘material needs satisfaction’ has a strong effect on trust among individuals with very few material needs satisfied, developing countries are included in the logistic regression presented in table 9. ‘Material needs satisfaction’ is operationalized as whether the respondent, *-saved money? – just get by – spent savings – spent savings and borrowed money*<sup>29</sup>. The reference country is Norway and the reference group of material need satisfaction is ‘*saved money*’.

Table 8. . Logistic regression, estimating the effect of ‘material needs satisfaction’ on ‘Generalized trust’, controlled for ‘country of residence’.

Reference country: ‘Norway’	Odds Ratio of ‘Generalized trust’ Exp.(B)			Odds Ratio of ‘Generalized trust’ Exp.(B)	
	Uncontrolled	Controlled		Uncontrolled	Controlled
Albania	,164 (sig. ,000)	,168 (sig. ,000)	Singapore	,109 (sig. ,000)	,104 (sig. ,000)
Algeria	,066 (sig. ,000)	,066 (sig. ,000)	Zimbabwe	,072 (sig. ,000)	,076 (sig. ,000)
Azerbaijan	,131 (sig. ,000)	,133 (sig. ,000)	Spain	,287 (sig. ,000)	,254 (sig. ,000)
Argentina	,096 (sig. ,000)	,100 (sig. ,000)	Switzerland	,331 (sig. ,000)	,315 (sig. ,000)
Australia	,354 (sig. ,000)	,363 (sig. ,000)	Turkey	,101 (sig. ,000)	,132 (sig. ,000)
Bangladesh	,165 (sig. ,000)	,166 (sig. ,000)	Uganda	,045 (sig. ,000)	,048 (sig. ,000)
Armenia	,167 (sig. ,000)	,176 (sig. ,000)	Macedonia	,082 (sig. ,000)	,083 (sig. ,000)
Brazil	,016 (sig. ,000)	,016 (sig. ,000)	Egypt	,326 (sig. ,000)	,337 (sig. ,000)
Canada	,339 (sig. ,000)	,346 (sig. ,000)	Tanzania	,045 (sig. ,000)	,044 (sig. ,000)
Chile	,155 (sig. ,000)	,160 (sig. ,000)	USA	,300 (sig. ,000)	,295 (sig. ,000)
China	,601 (sig. ,000)	,617 (sig. ,000)	Uruguay	,150 (sig. ,000)	,155 (sig. ,000)
Taiwan	,318 (sig. ,000)	,318 (sig. ,000)	Venezuela	,102 (sig. ,000)	,105 (sig. ,000)
Colombia	,065 (sig. ,000)	,067 (sig. ,000)	Serbia	,122 (sig. ,000)	,125 (sig. ,000)
Georgia	,117 (sig. ,000)		,124 (sig. ,000)	Montenegro	
India	,346 (sig. ,000)	,351 (sig. ,000)	Dominican Republic	,183 (sig. ,000)	,190 (sig. ,000)
Indonesia	,458 (sig. ,000)	,486 (sig. ,000)	Bosnia Herzegovina	,100 (sig. ,000)	,106 (sig. ,000)

<sup>29</sup> This operationalization of ‘material needs satisfaction’ is inadequate comparing ‘developed countries’. ‘Saving’/ ‘spending’ money might reflect the respondent’s apprehension of economic security and not ‘need satisfaction’ e.g. economic security provided by a generous welfare state renders less need to act thrifty and save rather than spend money. Though, comparing developing countries this operationalization is assumed to be adequate.

Table 8. Cont. Reference country: 'Norway'	Odds Ratio of 'Generalized trust' Exp.(B)			Odds Ratio of 'Generalized trust' Exp.(B)	
	Uncontrolled	Controlled		Uncontrolled	Controlled
Iran	,535 (sig. ,000)	,544 (sig. ,000)	El Salvador	,089 (sig. ,000)	,094 (sig. ,000)
Japan	,357 (sig. ,000)	,363 (sig. ,000)	South –Korea	,205 (sig. ,000)	,208 (sig. ,000)
Jordan	,202 (sig. ,000)	,212 (sig. ,000)	Viet Nam	,346 (sig. ,000)	,357 (sig. ,000)
Mexico	,143 (sig. ,000)	,147 (sig. ,000)	South Africa	,071 (sig. ,000)	,068 (sig. ,000)
Morocco	,161 (sig. ,000)	,164 (sig. ,000)	Moldova	,090 (sig. ,000)	,094 (sig. ,000)
Nigeria	,184 (sig. ,000)	,183 (sig. ,000)	Puerto Rico	,157 (sig. ,000)	,166 (sig. ,000)
Sweden	,955 (sig. ,611)	,939 (sig. ,488)	New Zealand	,510 (sig. ,000)	,523 (sig. ,000)
Pakistan	,213 (sig. ,000)	,226 (sig. ,000)	Just get by		,850 (sig. ,000)
Peru	,064 (sig. ,000)	,064 (sig. ,000)	Spent savings		,818 (sig. ,000)
Philippines	,049 (sig. ,000)	,051 (sig. ,000)	Spent savings, borrowed money		,797 (sig. ,000)

As indicated by table 8, respondents from all countries are less trusting than Norwegians. Brazilians and Tanzanians are the least trusting. When controlled for 'material needs satisfaction' the odds ratio remains largely the same. Almost none of the variation of 'Generalized trust' can be attributed to the 'material needs satisfaction' variable. As operationalized in this regression, 'material needs satisfaction' does not explain the differences in 'Generalized trust' among respondents from developing and developed nations.

## 5.5 Logistic regression: 'Particularized trust' explained by structural and intermediate variables of modernization?

Using individual level data I will test material needs satisfaction, defamilization and secularization. Since the country level variation of 'Particularized trust' is strongly affected by outliers and since the variation is limited among advanced industrial countries I chose

not to include the country level variables of the welfare state, institutional quality and GDP in this logistic regression.

Table 9. Logistic regression, estimating the effect of background, modernization family and religiosity on ‘Particularized trust’, controlled for country of residence.

		Sig.	Exp.(B)
Female	Reference group: Male	,000	,788
Age 15-29	Reference group: 30-49	,000	,743
Age 50-69	“	,000	1,318
Age 70-110	“	,000	1,449
Completed school at 13 years of age	Reference: Completed >20 years	,000	1,538
Completed school at 15 years of age		,000	1,543
Completed school at 17 years of age		,000	1,412
Completed school at 19 years of age		,006	1,235
Unskilled manual worker	Reference group: Professional work e.g. lawyer	,008	1,336
Farmer/ agricultural worker	“	,057	1,261
Skilled/ Semi-skilled manual worker	“	,016	1,253
Foreman/ Supervisor	“	,098	1,273
Office worker	“	,329	,913
Employer < 10 employees	“	,645	1,060
Employer more than > 10 employees	“	,576	1,106
Military/ Security personnel	“	,018	1,714
‘Never had a job’	“	,183	1,150
Income 1/5 (lowest)	Reference group: 3/5 (average)	,085	1,127
Income 2/5	“	,591	1,034
Income 4/5	“	,219	,906
Income 5/5 (highest)	“	,018	,766
Lives with parents? (v.357)	Reference group: <i>yes</i>	,944	,995
Have no children (v.107)	Reference group: 1-4 children	,677	,972
Have five or more children	“	,434	1,066

Table 9. continued		Sig.	Exp(B)
A woman does not have to have children in order to be fulfilled	Reference group: <i>Needs children</i>	,008	,862
Having a job is the best way for a woman to be independent (v.222)	Reference group: <i>Disagree</i>	,006	,872
Gets comfort and strength from religion!	Reference group: <i>yes</i>	,600	,961
Religious person	Reference group: <i>Not religious</i>	,866	1,013
Atheist	“	,213	,833
God very important in life (.v176)	Reference group: <i>neither important nor unimportant</i>	,009	1,211
Visits ‘Church’ <i>More than once a week</i>	Reference group: <i>Only special holydays/ once a year</i>	,334	1,070
<i>Once a month</i>	“	,108	1,138
<i>Less than yearly</i>	“	,909	,992
Roman catholic	Reference group: Protestant	,332	1,105
’Fundamentalist Protestant		,993	,999
Jew		,721	,769
Muslim		,008	1,746
Hindu		,012	1,663
Buddhist		,397	,585
All other religions		,127	1,256
Not member of any church		,713	,957
N		26596	

From this regression we can conclude that women are less likely to be ‘Particularized trusters’. Rising age increase the odds of being a ‘Particularized truster’. In line with the hypothesis does rising length of education decrease the odds of being a ‘Particularized truster’. ‘Professional workers’ are the least likely and military personnel the most likely to be ‘Particularized trusters’. Income seems to be less important, though the earners of the highest incomes are less likely to be ‘Particularized trusters’. Family situation does not have any significant effect though patriarchal values are linked to ‘Particularized trust’. Respondents claiming that god is very important in their life are more likely to be ‘Particularized trusters’, none of the other variables on religiosity are significant. Muslims and Hindus are more likely to be ‘Particularized trusters’ though, as mentioned, the

variation can be attributed to immigranthood. Finally an overview is presented where the effect of all variables in the regression can be compared with the uncontrolled result. Controlled for background, modernization, family and religiosity variables in 29 of the 42 countries.

Table 10. Logistic regression, estimating the effect of country of residence on ‘Particularized trust’, controlled for background and modernization variables.

Reference group: ‘Denmark’	Odds Ratio of ‘Particularized trust’ Exp.(B)			Odds Ratio of ‘Particularized trust’ Exp.(B)	
	Uncontrolled	Controlled		Uncontrolled	Controlled
Argentina	2,556 (sig. ,000)	1,616 (sig. ,084)	Japan	,273 (sig. ,000)	
Austria	1,806 (sig. ,000)	1,550 (sig. ,097)	Lithuania	3,313 (sig. ,000)	
Belarus	1,925 (sig. ,000)		Mexico	2,663 (sig. ,000)	1,623(sig.,062)
Belgium	,825 (sig. ,234)	,735 (sig. ,243)	Netherlands	,448 (sig. ,001)	,495 (sig.,030)
Bulgaria	4,666 (sig. ,000)	3,836 (sig. ,000)	Nigeria	,634 (sig. ,034)	,440 (sig.,008)
Brazil	2,095 (sig. ,000)	1,044 (sig. ,868)	Norway	,650 (sig. ,032)	,464 (sig.,017)
Canada	1,543 (sig. ,007)	1,252 (sig. ,364)	Latvia	5,314 (sig. ,000)	5,961(sig.,000)
Chile	1,987 (sig. ,000)	1,496 (sig. ,108)	Lithuania	3,313 (sig. ,000)	
China	,458 (sig. ,001)		Poland	,965 (sig. ,855)	
Czecho slovakia	,154 (sig. ,000)		Portugal	2,742 (sig. ,000)	1,516 (sig,105)
Estonia	2,315 (sig. ,000)		Romania	2,468 (sig. ,000)	1,411(sig.,201)
Finland	,526 (sig. ,019)	,519 (sig.,111)	Russia	,832 (sig. ,285)	,863 (sig.,607)
France	,725 (sig. ,120)	,542 (sig.,047)	Slovenia	6,693 (sig. ,000)	5,117 (sig,000)
WGermany	1,152 (sig. ,382)	,787 (sig.,345)	S-Africa	,679 (sig. ,020)	
E-Germany	1,842 (sig. ,000)	1,416 (sig.,165)	S-Korea	3,105 (sig. ,000)	
Hungary	1,793 (sig. ,001)	1,317 (sig.,308)	Spain	1,366 (sig. ,033)	,902 (sig.,678)
Iceland	,604 (sig. ,038)		Sweden	,617 (sig. ,024)	,809 (sig., 653)
India	7,915 (sig. ,000)	4,115 (sig.,000)	Turkey	12,291(sig. ,000)	
Ireland	2,128 (sig. ,000)	1,456 (sig.,150)	USA	1,126 (sig. ,471)	,762 (sig.,289)
N-Ireland	2.627 (sig. ,000)	1,408 (sig.288)	Great Britain	1,191 (sig. ,303)	,915 (sig.,728)
Italy	,190 (sig. ,000)	,077 (sig. ,000)			

(Empty spaces in the table due to missing data)

Controlling for modernization variables does over all reduce the importance of country of residence. The strongest effect is found among respondents from countries with a high percentage of ‘Particularized trusters’ where the odds is markedly reduced controlling for personal modernization. While these results to some degree fits to the hypothesis. The



hypothesis can not explain why e.g. Czechoslovakia or Italy has many fewer 'Particularized trusters' than e.g. Slovenia and Spain.

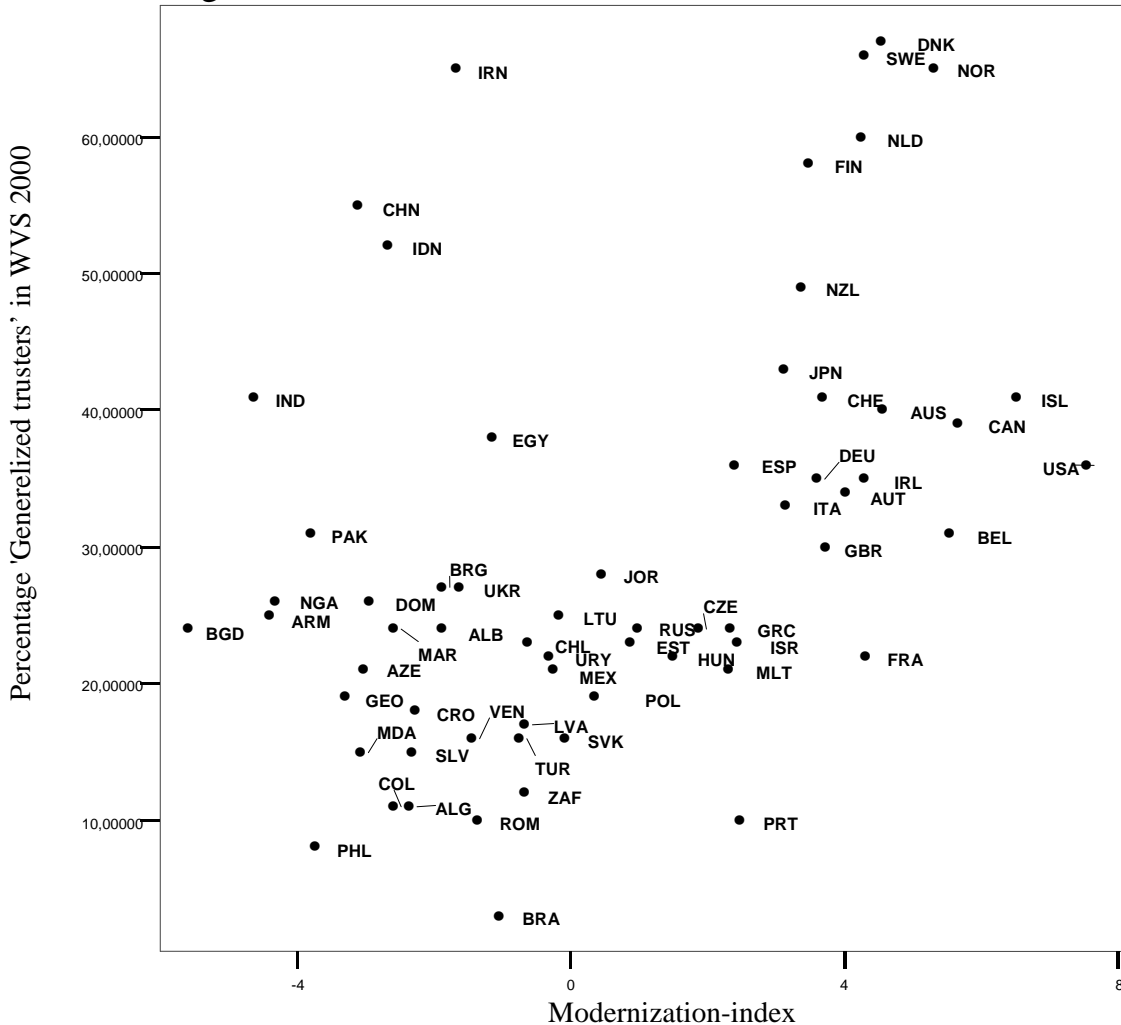
## 5.6. Country level statistical analysis

### 5.6.1. Modernization index

In this analysis, which focuses on countries rather than individuals, my intension is to explain some of the unexplained effect of 'country of residence' from the individual level analysis. Hence in this regression I compare countries at different stages of modernization, postulating that my variables of modernization indicate stages in the modernization process. For this reason I have constructed an index of modernization including standardized Z-scores of; percentage of workforce employed in service sector, purchasing power per capita, energy consumption per capita and calorie consumption per capita. Other aspects of modernization such as female emancipation, is considered to be intermediate variables and will hence be analyzed separately. The correlation between the modernization index and

Generalized trust' among 63 countries is moderate at 0,434 Perarsons r (sig. 1% level).

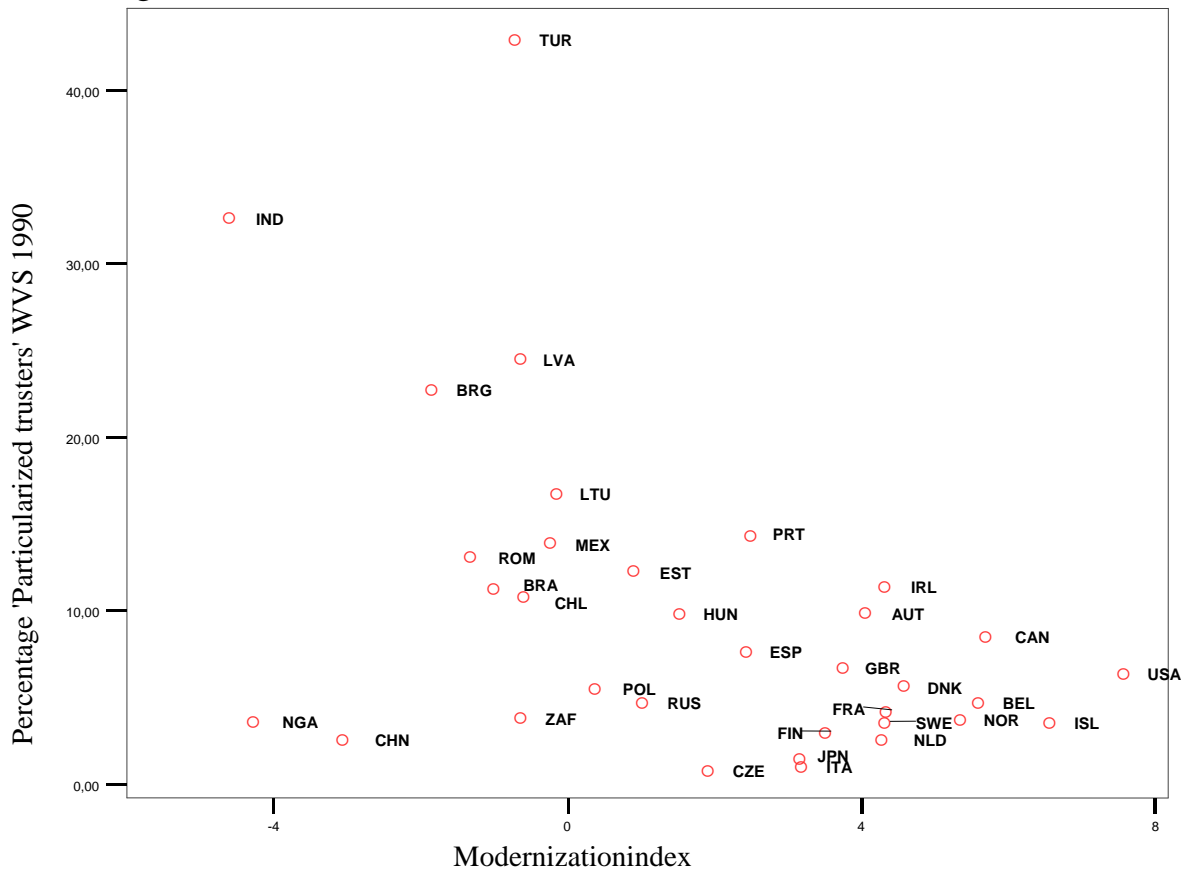
Figure 4. 'Generalized ' trust and modernization in 63 countries



Percentage claiming that 'most people can be trusted' in World Values Survey 2000. Modernization index: Standardized Z-scores of; percentage of workforce employed in service sector, purchasing power /c., energy consumption/ c., calorie consumption/ c. Figures for 2000. Sources and country codes in appendix 2.

As indicated by the scatter plott in fig. 4 some outliers are weakening the correlation. Asian countries like Iran, China and India seem to have trusting populations despite scoring low on the modernization index. While Chinas high percentage of 'trusters' often is attributed to Confucianism (Inglehart 1999) and cooperation demanding farming methods and Indias position to its democratic legacy, I have not found any attempts to explain the high proportion of trusters in the totalitarian and Islamic state of Iran. According to Inglehart's cross country analyses of trust (1999) is totalitarianism and Islam negatively correlated to 'Generalized trust'. At the other end of the scatterplott we find USA, Belgium and France, countries which according to the hypotheses should have a more trusting population.

Figure 5. 'Particularized trust' and modernization in 34 countries 1990



'Particularized trusters' are respondents who trust his/ hers family and his/ hers countrymen 'completely' but does not trust 'most people' in World Values Survey 1990. Modernization index: Standardized Z-scores of; percentage of workforce employed in service sector, purchasing power /c., energy consumption/ c., calorie consumption/ c. Figures for 1990. Sources and country codes in appendix 2.

In line with my hypotheses, there is a negative correlation between the modernization-index and 'Particularized trust' (-,47 pearsons r sig 1% level). As indicated by figure 5. the percentage of 'Particularized trusters' vary considerably. From 43% in Turkey to 0,9% in the Check republic. Nigeria and China has an unpredicted low fraction of 'Particularized trusters' while Turkey's percentage of 'Particularized trusters' is unexpectedly high. However, as mentioned in the methodological chapter, there are reasons to analyze third world country survey results cautiously.

## 5.6.2 Material needs satisfaction

As indicated by table 11 does all ‘material needs satisfaction’ variables correlate positively to ‘Generalized trust’. There is also a relation between ‘Particularized trust’ and ‘material needs satisfaction’ though calorie consumption and life expectancy are not significantly correlated to ‘Particularized trust’.

Table 11. Correlations between trust and ‘Material need satisfaction’

		‘Generalized trust’ in WVS 2000	‘Particularized trust’ in WVS 1990
Daily per capita supply of calories (1997)	Pearson Correlation	,316(**)	-,185
	Sig. (2-tailed)	,008	,266
	N	69	38
Energy consumption per pp. (2000)	Pearson Correlation	,422(**)	-,426(**)
	Sig. (2-tailed)	,000	,008
	N	75	38
Purchasing power per capita (2000)	Pearson Correlation	,428(**)	-,440(**)
	Sig. (2-tailed)	,000	,006
	N	71	38
Television receivers per 1000 pp (1995)	Pearson Correlation	,470(**)	-,371(*)
	Sig. (2-tailed)	,000	,022
	N	64	38
Life expectancy at birth (2000)	Pearson Correlation	,357(**)	-,199
	Sig. (2-tailed)	,002	,231
	N	72	38

\* Correlation is significant at the 0.05 level (2-tailed). \*\* Correlation is significant at the 0.01 level (2-tailed).

## 5.6.3 Specialization of the workforce and urbanization.

Here the results are more disparate, urbanization and percentage agricultural workers are not significantly correlated to ‘Generalized trust’. Again, the East Asian countries; India, Indonesia and China is more trusting than their level of urbanization or their specialization of their workforces would incline. Though, in line with the hypothesis is ‘Particularized trust’ negatively correlated with both urbanization and specialization of the workforce. Somewhat surprising is that percentage of women in professional/ technical jobs seems to be irrelevant.

Table 12. Correlations between trust and Specialization of the workforce/urbanization.

		'Generalized trust' in WVS 2000	'Particularized trust' in WVS 1990
Average years of schooling (2000)	Pearson Correlation	,402(**)	-,450(**)
	Sig. (2-tailed)	,002	,010
	N	55	32
Agricultural labor as % of total work force (2000)	Pearson Correlation	-,136	,403(*)
	Sig. (2-tailed)	,260	,013
	N	71	37
Service labor as % of total work force (2000)	Pearson Correlation	,323(**)	-,430(*)
	Sig. (2-tailed)	,007	,011
	N	68	34
Percentage urban population (2000)	Pearson Correlation	,116	-,353(*)
	Sig. (2-tailed)	,335	,030
	N	71	38

\* Correlation is significant at the 0.05 level (2-tailed). \*\* Correlation is significant at the 0.01 level (2-tailed).

#### 5.6.4 Increased reliance on society and decreased dependence on family and kin.

As predicted do most 'defamilization' aspects of modernization correlate positively with 'Generalized trust' and negatively with 'Particularized trust'. 'Gender equality index' is the most precise predictor of 'Generalized' (r -,685) and 'Particularized' (r -,538) trust. However, divorce rate, which might be argued, is the prime example of 'defamilization' is not significantly correlated with trust.

Table 13. Correlations between trust and ‘Defamilization’ and female emancipation

		‘Generalized trust’ in WVS 2000	‘Particularized trust’ in WVS 1990
Defamilizationindex -female labour participation, -duration of compensated maternity leave, -maternity leave compensation (% of pay) -female wage percentage of male. 2000	Pearson Correlation	,492(*)	-,265
	Sig. (2-tailed)	,038	,360
	N	18	14
Female employment rate (2000)	Pearson Correlation	,630(**)	-,588(**)
	Sig. (2-tailed)	,000	,003
	N	30	24
Percentage women in tertiary education (1990)	Pearson Correlation	,142	,467(**)
	Sig. (2-tailed)	,324	,008
	N	50	31
Percentage women in professional/technical jobs (1998)	Pearson Correlation	-,160	-,216
	Sig. (2-tailed)	,263	,244
	N	51	31
Percentage women in parliament (1998)	Pearson Correlation	,617(**)	-,382(*)
	Sig. (2-tailed)	,000	,020
	N	67	37
Divorce per capita (1990)	Pearson Correlation	,238	-,208
	Sig. (2-tailed)	,093	,245
	N	51	33
Gender equality Index 2000 (% women in parliament, woman's professional participation, women's share of income)	Pearson Correlation	,685(**)	-,538(**)
	Sig. (2-tailed)	,038	,360
Gender equality Index 1990's (% women in parliament, woman's professional participation, women's share of income), means 1992,1996, 1998, 2000	Pearson Correlation	,428(**)	-,497(**)
	Sig. (2-tailed)	,000	,002
	N	64	37

Correlation is significant at the 0.05 level (2-tailed). \*\* Correlation is significant at the 0.01 level (2-tailed).

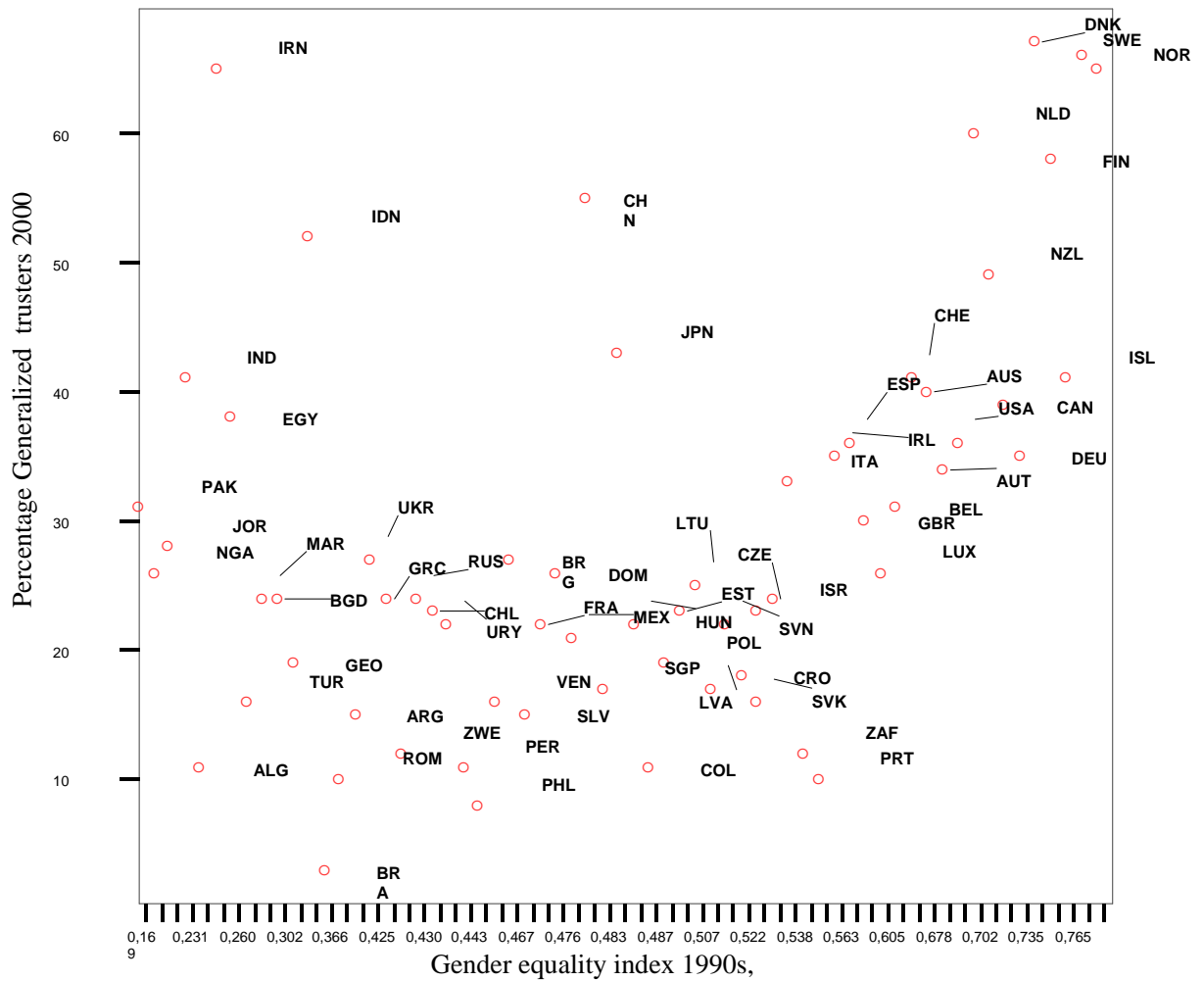
When developing countries are excluded, the correlation between ‘Generalized trust’ and the Gender equality index of the 1990’s is remarkably strong at ,819r,

Table 13. continued.		'Generalized trust' in WVS 2000	'Particularized trust' in WVS 1990
Gender equality Index 1990's % women in parliament, woman's professional participation , women's share of income) means of -92, -96,- 98,-00	Pearson Correlation	,819(**)	-,419(*)
	Sig. (2-tailed)	,000	,024
	N	37	29

\*Correlation is significant at the 0.05 level (2-tailed). \*\* Correlation is significant at the 0.01 level(2-tailed).

One reason for the weaker correlation when all 64 countries are included in the analyses is that the index includes 'woman's share of income', an aspect of equality that third world countries (especially African) scores high on. A high share of earnings by women might reflect female empowerment but does not reflect 'defamilization' as understood in western countries. As indicated by the scatterplot in fig. 5, some third world countries weakens the correlation between 'Generalized trust' and the 'gender equality index 'of the 1990's.

Figure 6. Generalized trust and Gender equality WWV 2000



Percentage claiming 'most people can be trusted' in WVS 2000. Gender equality Index 1990's ( % women in parliament, woman's professional participation , women's share of income, means 1992, 1996, 1998, 2000. Country codes in appendix 1.

As seen from this scatter plot is there a close relationship between 'gender equality' and 'Generalized trust'. The link is especially strong excluding the Asian outliers, high trust countries combined with a low score on the gender equality and the African . Though it is difficult to determine to what extent gender equality/ defamilization has a causal effect on trust. It might be the case that gender equality reflects values that also promotes 'Generalized trust'.



### 5.6.5 Secularization

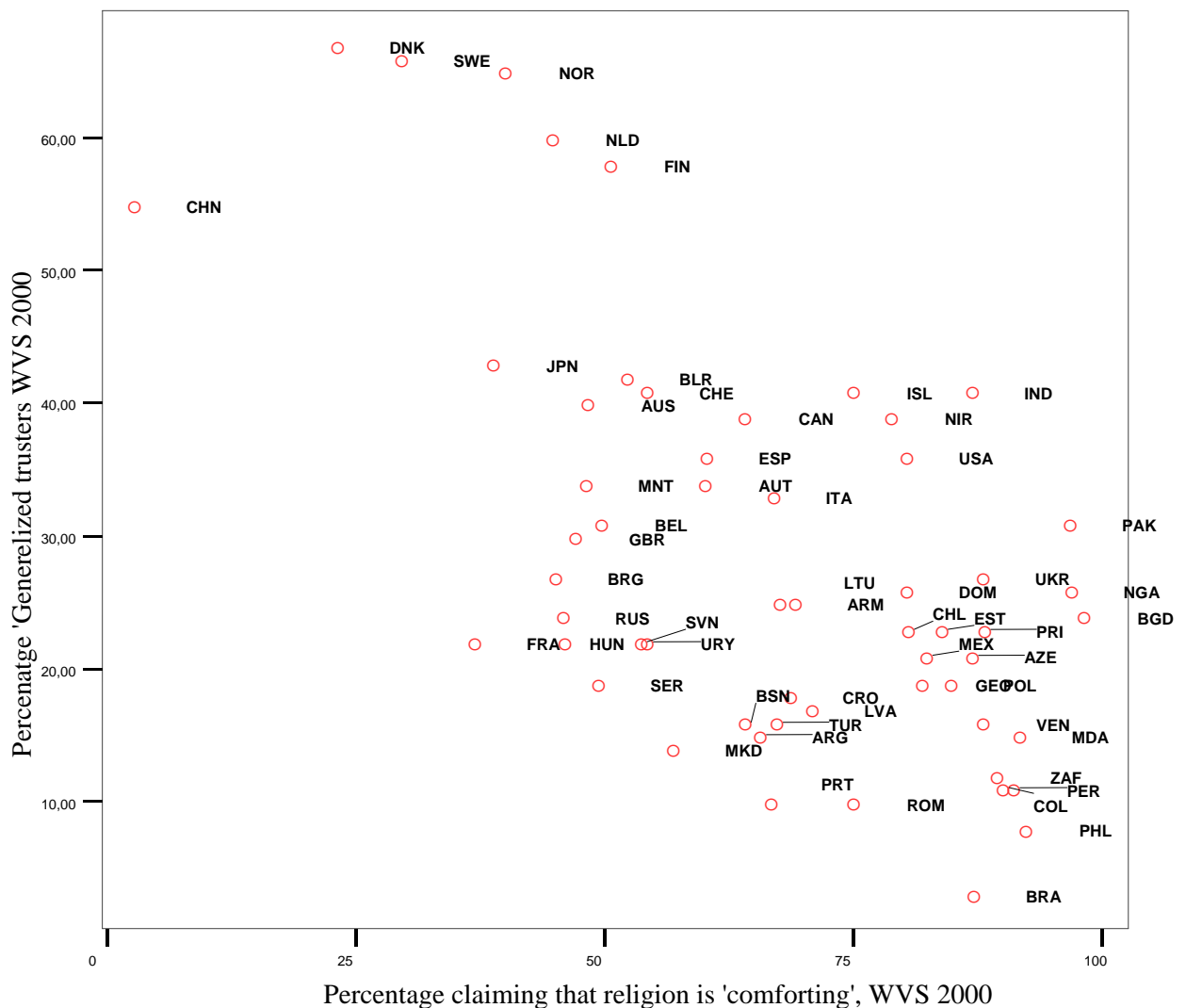
Comparing country means, the negative relationship between religiosity and ‘Generalized trust’ is quite strong, though correlations between ‘Particularized trust’ and religiosity are weak and not statistically significant. The proportion Muslims or protestants is however not a sign of religiosity but indicates a correlation between Muslim/ protestant countries and trust.

Table 14. Correlations between Trust and religion/ religiosity variables

		‘Generalized trust’ WVS 2000	‘Particularized trust’ WVS 1990
% of respondents claiming ‘religion is comforting’ WVS 2000	Pearson Correlation	-,605(**)	,270
	Sig. (2-tailed)	,000	,101
	N	57	38
% of respondents identifying as a ‘religious person’ WVS 1995	Pearson Correlation	-,579(**)	,187
	Sig. (2-tailed)	,000	,382
	N	42	24
% of respondents attending religious services once a week or more. WVS 1995	Pearson Correlation	-,481(**)	,142
	Sig. (2-tailed)	,001	,490
	N	43	26
% Muslim population	Pearson Correlation	-,253	,626(*)
	Sig. (2-tailed)	,327	,012
	N	17	15
% Protestant population	Pearson Correlation	,712(**)	-,399
	Sig. (2-tailed)	,000	,059
	N	38	23

\* Correlation is significant at the 0.05 level (2-tailed) \*\* Correlation is significant at the 0.01 level (2-tailed).

Figure 7. Generalized trust' and religiosity WVS 2000



Percentage claiming 'most people can be trusted' in WVS 2000. 'religion is comforting' is aggregated data from WVS question V.197 'Do you find that you get comfort and strength from religion?' Scale 0-1 = 0-100% of respondents. Country codes in appendix 1.

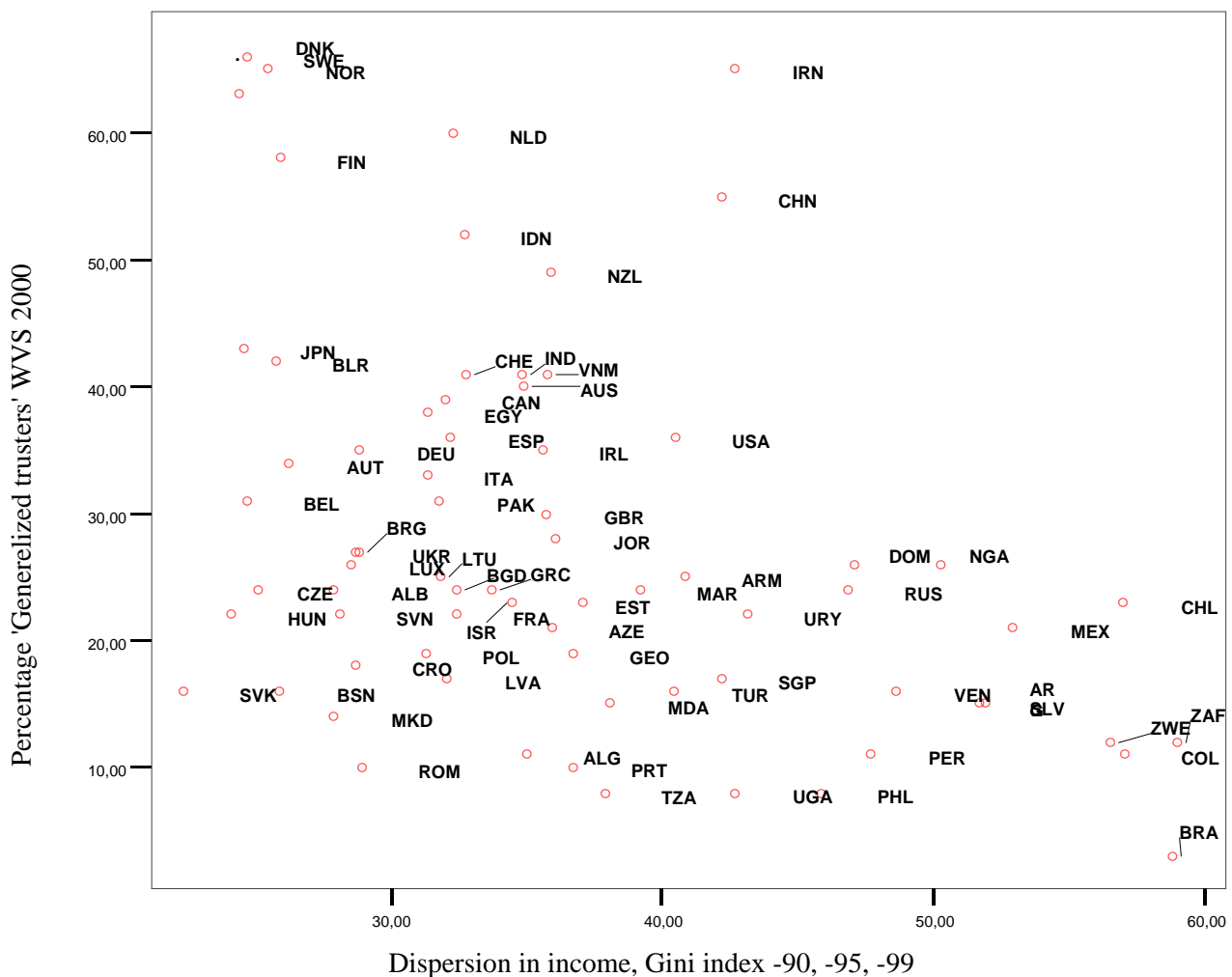
The correlation of  $r = -0.605$  indicates a relatively strong negatively link between 'Generalized trust' and 'religiosity'. There are no obvious outliers affecting the result. Though, India has a high percentage of 'Generalized trusters' considering their religiosity. At the other end of the scatterplott has France fewer 'Generalized trusters' than their (low) degree of religiosity would incline.

## 5.7 Intermediate political, institutional or cultural variables

### 5.7.1 Equality

Analyzing 73 countries the correlation between 'Generalized trust' in WVS 2000 and a gini-index of income (mean of -90, -95, -99) is not overly convincing at 0,41 r. This relationship is however weakened by former east block countries. Excluding 21 former Soviet satellite states the correlation is .62 r (N52). I would argue that there are plausible reasons to exclude the former east block countries analyzing the effect of equality on trust. Due to there socialist legacy the former east block countries where, and to some extent are, equal in terms of income dispersion, though in a combination with authoritarianism the societal benefits of equality does not level out the negative aspects of authoritarianism.

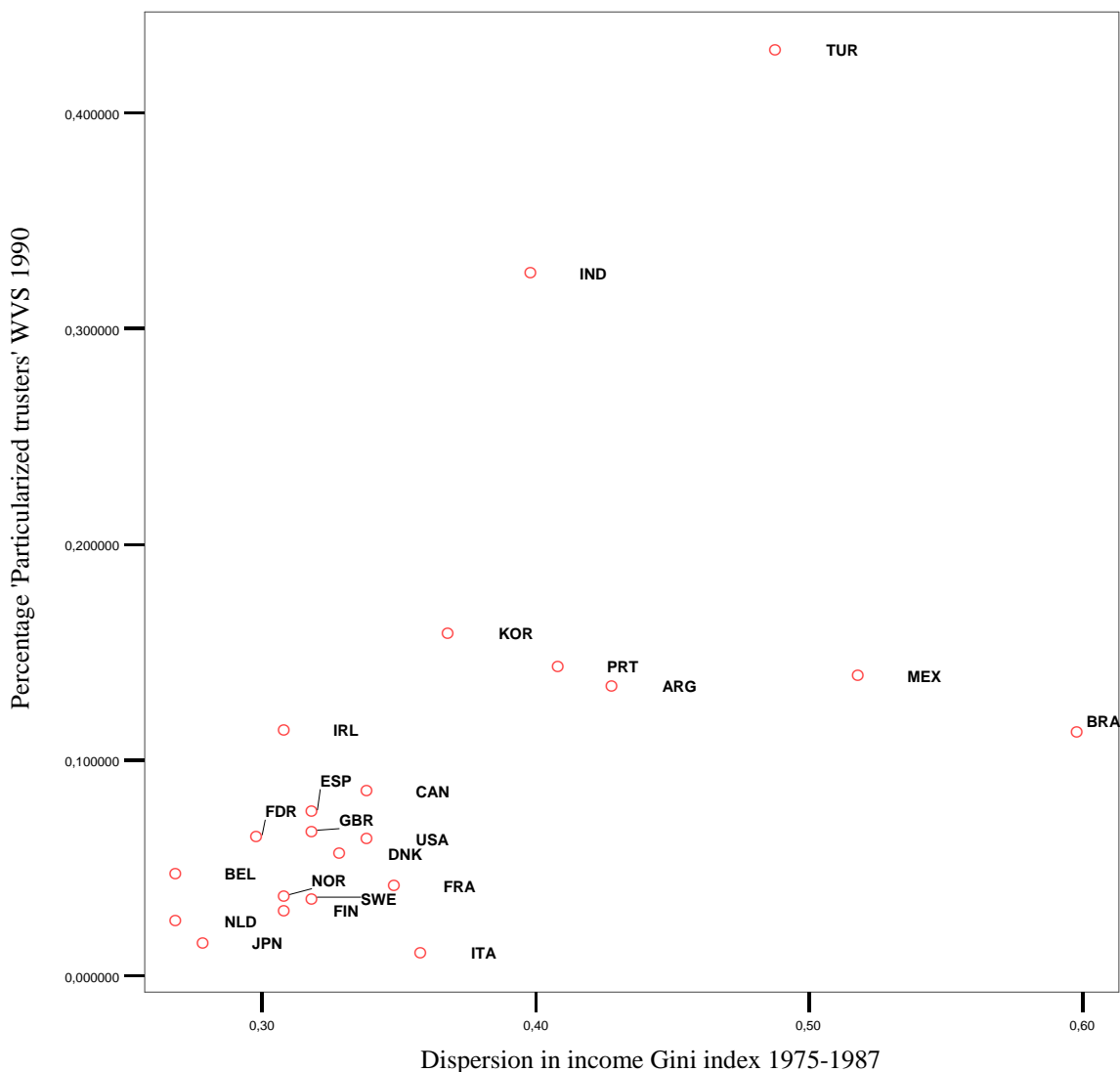
Figure 8. Generalized trust and Income equality 2000



Other measurements of inequality confirm the negative relationship between ‘Generalized trust’ and inequality. The correlation between ‘Generalized trust’ and ‘share of the richest 20% of the population to the poorest 20% of the population’ (how many times richer the rich are than the poor) is at ,44 r, (N 63) including former Soviet satellites and at ,57 r (N 45) excluding former Soviet satellite states.

As predicted, there is a negative correlation between equality and ‘Particularized trust’. The correlation between ‘Particularized trust’ and income distribution is ,56 r (N 22).

Figure 9. ‘Particularized trust’ and income equality 1990



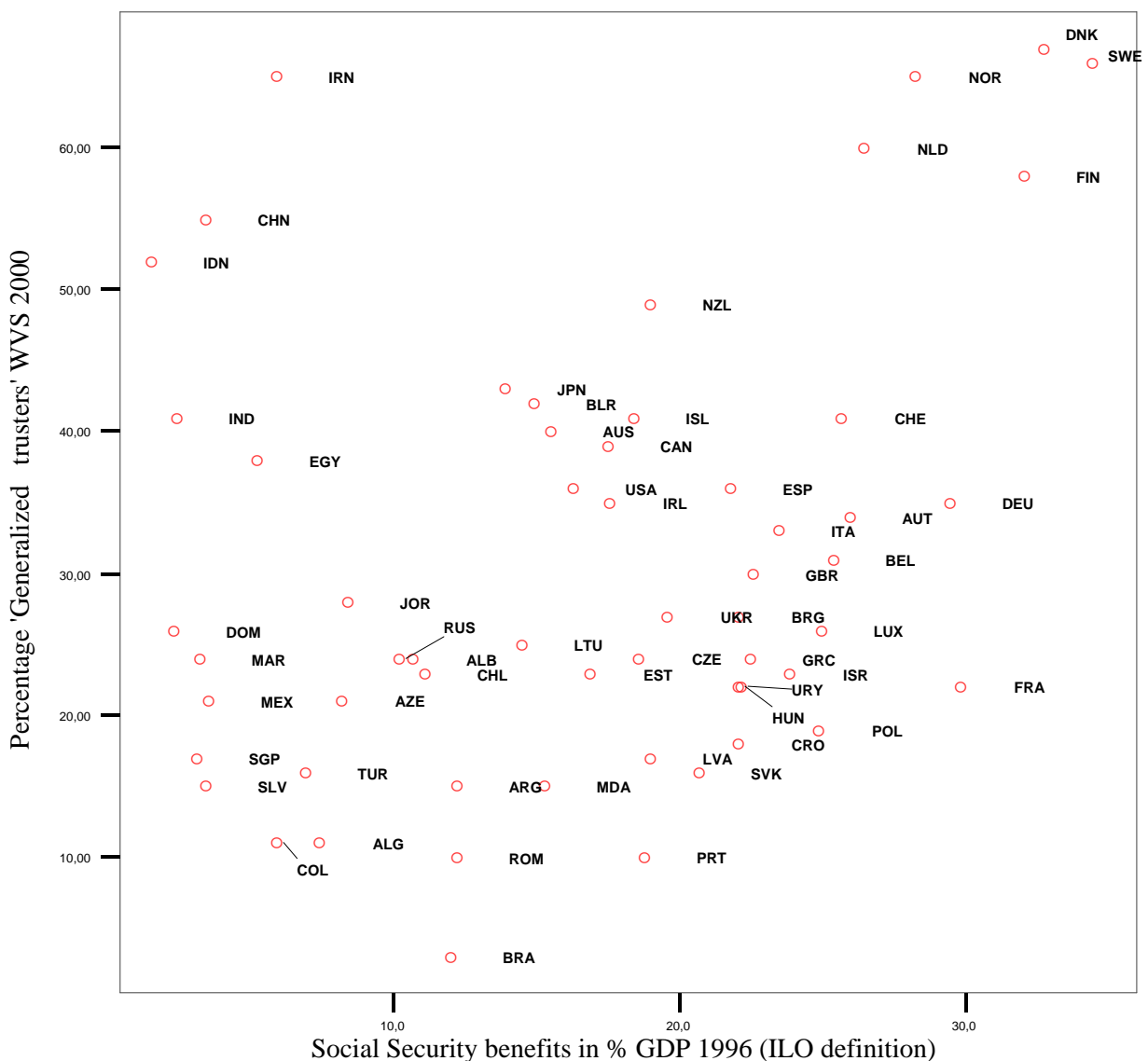
‘Particularized trusters’ are respondents who trust his/ hers family and his/ hers countrymen ‘completely’ but does not trust ‘most people’ in World Values Survey 1990. Gini index measures inequality over the distribution of income or consumption. 0 = perfect income equality, 100 = perfect income inequality. Source: UN-HDR 2001 table 12 and 2004 table 14. Country codes in appendix 2.

As indicated by the scatterplot this correlation should however not be over interpreted. The correlation is based on relatively few countries and virtually non existent comparing western countries.

### 5.7.2 The quantity and quality of welfare programs

The size of the welfare state, measured as expenditures on social security in percent of GDP correlates with ‘Generalized trust’ at ,30 r. (N 58).

Figure 10. ‘Generalized trust’ Social Security benefits 2000

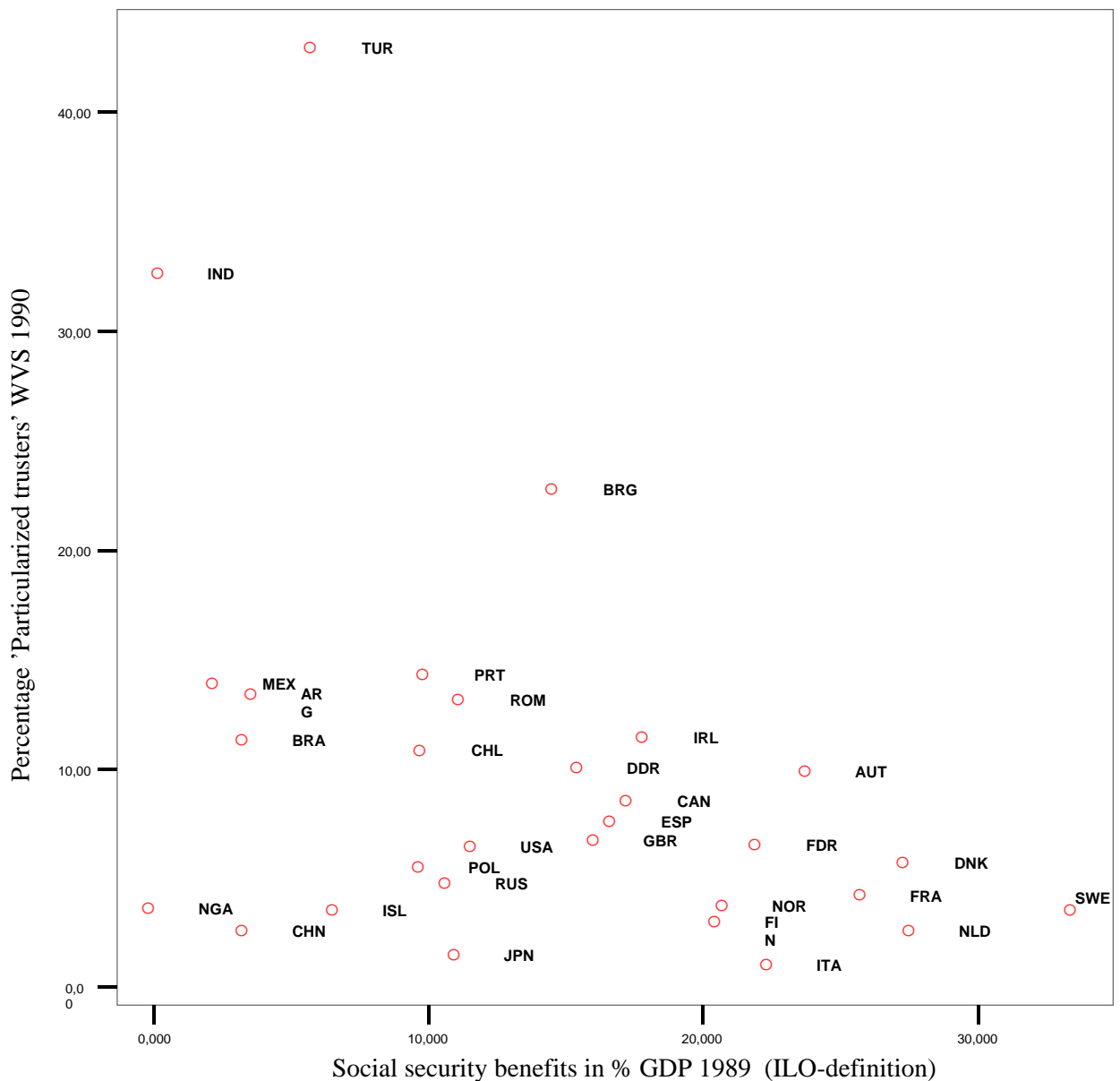


Percentage claiming ‘most people can be trusted’ in WVS 2000. The ILO definition of social Security covers: medical care, child allowances and allowances for illness, unemployment, aged, disablement, pregnancy, invalidity, and war victims. It does not include education, or culture subsidies. Source: Veenhoven, R., Country codes in appendix 1.

Excluding developing countries, analyzing 36 industrial countries the correlation is strengthened to ,57 r.

The correlation between ‘Particularized trust’ and the quantity of welfare programs is -,41 (N=30)

Figure 11. ‘Particularized trust’ and Social Security benefits 1990



‘Particularized trusters’ are respondents who trust his/ hers family and his/ hers countrymen ‘completely’ but does not trust ‘most people’ in World Values Survey 1990. The ILO definition of social Security covers: medical care, child allowances and allowances for illness, unemployment, aged, disablement, pregnancy, invalidity, and war victims. It does not include education, or culture subsidies. Country codes in appendix 2.

-Quality of welfare programs.

Due to a shortage of comparative data on the quality of welfare programs, the statistical analysis should not be over interpreted and is merely included as an indication. The 'quality' of welfare state is operationalized using Esping-Andersens variables from *The three Worlds of Welfare Capaitalism*, 'decomodification index'<sup>30</sup>, 'program universalism'<sup>31</sup> and 'percentage means-tested poor-relief'<sup>32</sup>, though with data for only 16 countries only one aspect, 'program universalism' has an statistically significant effect on 'Generalized trust',  $r = .58$ .

There were no significant correlations between 'Particularized trust' and the quality of welfare programs (N= 14/15)

### 5.7.3 Quality of government institutions and corruption

As indicated by the correlations in table 16, is institutional quality and corruption linked to both 'Generalized' and 'Particularized' trust. The most commonly cited index of corruption from 'Transparency International' is used in a scatterplott indicating the same East Asian outliers; Iran, China, India and Indonesia. As indicated by the same scatterplott, the correlation among advanced industrial countries is strong though non existent among developing countries. Examining the scatterplot on 'Particularized trust' and corruption, former Soviet satellite states and some African countries have an outlier position. These countries have fewer 'Particularized trusters' than there relatively high level of corruption would incline. As discussed in the methodological chapter it is however difficult to establish what is the cause and what is the consequence. Is corruption and institutional ineffectiveness a sign of weak 'Generalized trust' or does corruption and ineffective institutions create distrust?

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<sup>30</sup> Unemployment Insurance; -replacement rate, -qualifying period, -duration of benefit, -waiting days -coverage ratio  
Sickness Cash benefit; -replacement rate, -qualifying period, -duration of benefit, -waiting days -coverage ratio  
Retirement Pensions; -minimum replacement rate, -standard replacement rate, -contribution ratio, -qualifying period, -coverage/take-up rate. For details see Esping-Andersen 1990

<sup>31</sup> Degree of program universalism as averaged percentage of population, 16-64, eligible for sickness unemployment, and pension benefits, and degree of equality in the benefit structure as an average for the above mentioned three programs in terms of the ratio of the basic level of benefits to the legal maximum benefit possible. Esping-Andersen 1990 s. 73

<sup>32</sup> Means-tested poor-relief as % of total public social expenditure, Esping-Andersen 1990, s. 73

Table 15. Correlations between trust and institutional quality/ corruption

		'Generalized trust'' WVS 2000	'Particularized trust'' WVS 1990
Institutional quality, 1997-98 <sup>33</sup>	Pearson Correlation	,288(*)	-,380(*)
	Sig. (2-tailed)	,015	,021
	N	71	37
Rule of law, 1998 <sup>34</sup>	Pearson Correlation	,456(**)	-,271
	Sig. (2-tailed)	,000	,116
	N	70	35
Government effectiveness, 1998 <sup>35</sup>	Pearson Correlation	,442(**)	-,390(*)
	Sig. (2-tailed)	,000	,021
	N	70	35
Corruption in Government, 1982-1995 <sup>36</sup>	Pearson Correlation	-,510(**)	,470(**)
	Sig. (2-tailed)	,000	,008
	N	49	31
Control of Corruption, 1998 <sup>37</sup>	Pearson Correlation	,456(**)	-,353(*)
	Sig. (2-tailed)	,000	,037
	N	70	35
Transparency International's Corruption Perceptions Index 1998 <sup>38</sup>	Pearson Correlation	-,559(**)	,392(*)
	Sig. (2-tailed)	,000	,014
	N	65	39

\* Correlation is significant at the 0.05 level (2-tailed). \*\* Correlation is significant at the 0.01 level (2-tailed).

<sup>33</sup> Index of -voice and accountability, -political instability and violence, -government effectiveness, -regulatory burden, -rule of law, -graft, based on various sources, e.g. surveys among businessmen, IMF 2000, / Veenhoven, R.

<sup>34</sup> Aggregation of subjective assessments. Includes indicators which measure the extent to which respondents have confidence in and abide by the rules of society; perceptions of the incidence of both violent and non-violent crime, the effectiveness and predictability of the judiciary and the enforceability of contracts. Kaufmann c.s. 1998, /Veenhoven, R.

<sup>35</sup> Aggregation of subjective assessments. Combines perceptions of the quality of public service provision, the quality of the bureaucracy, the competence of civil servants, the independence of civil service from political pressure, and the credibility of the government's commitment to policies into a single grouping. The main focus of this index is on inputs required for the government to be able to produce and implement good policies and deliver public goods. Kaufmann c.s. 1999a, World Bank/ Veenhoven, R

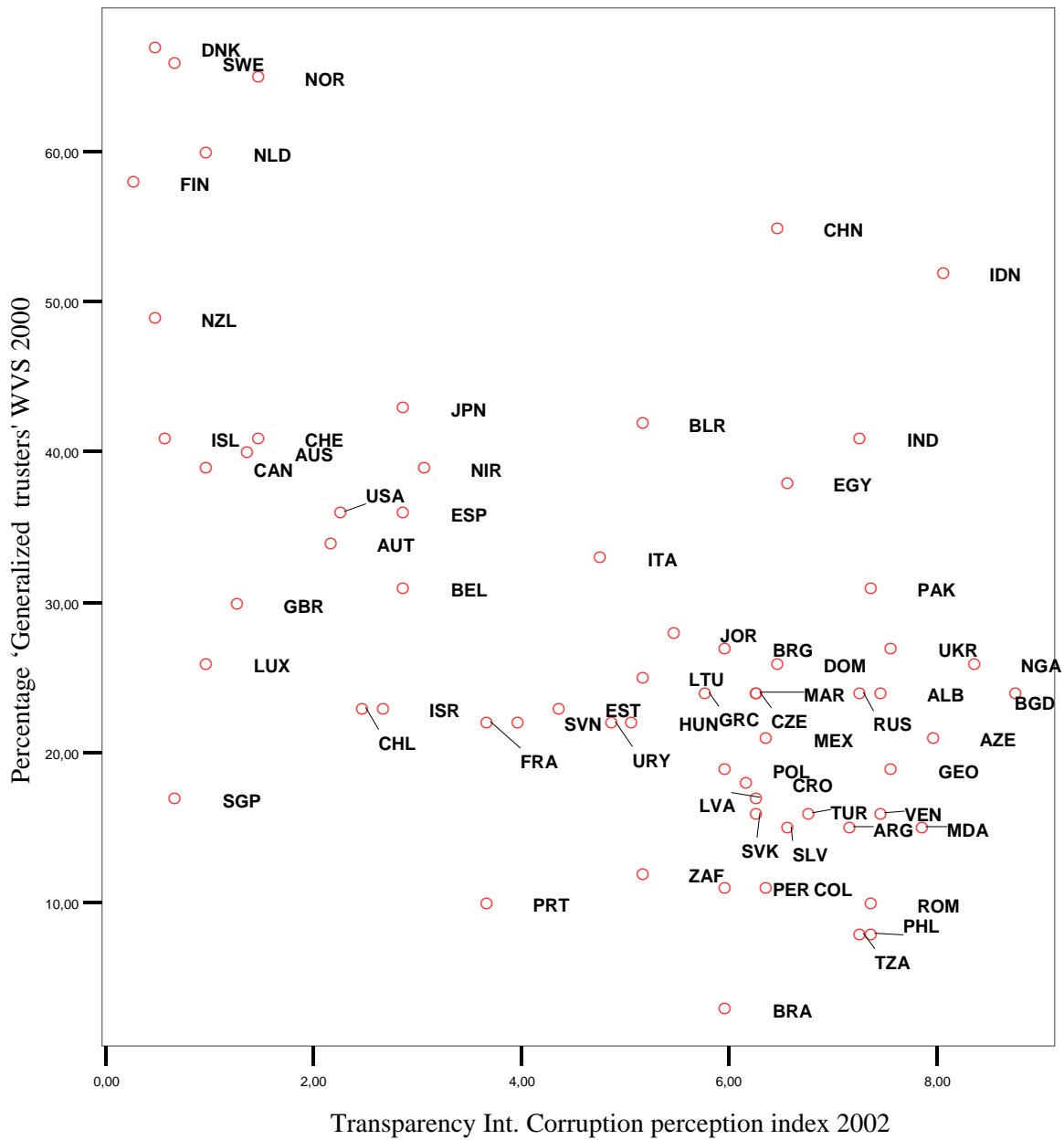
<sup>36</sup> Researchers assesment. The ICRG staff collects political information converting these into risk points on the basis of a consistent pattern of evaluation. ICR 1996, / Veenhoven, R.

<sup>37</sup> Aggregated indicator, subjective assessments. Measures perceptions of corruption (drawn from different sources), conventionally defined as the exercise of public power over private gain; ranging from frequency of 'additional payments to get things done' to the effect of corruption on the business environment, of measuring 'grand corruption' in the political arena to the tendency of elite forms to engage in 'state capture'. Kaufmann c.s. 1999a, / Veenhoven, R.

<sup>38</sup> A CPI 2002 score relates to perceptions of the degree of corruption as seen by business people, academics and risk analysts, and ranges between 10 (highly clean) and 0 (highly corrupt). Combined surveys on perceived abuse of public office for private gain, for example, on bribe-taking by public officials in public procurement. The sources do not distinguish between administrative and political corruption. (Transparency International's Corruption Perceptions Index 2002/ State of Nations.)

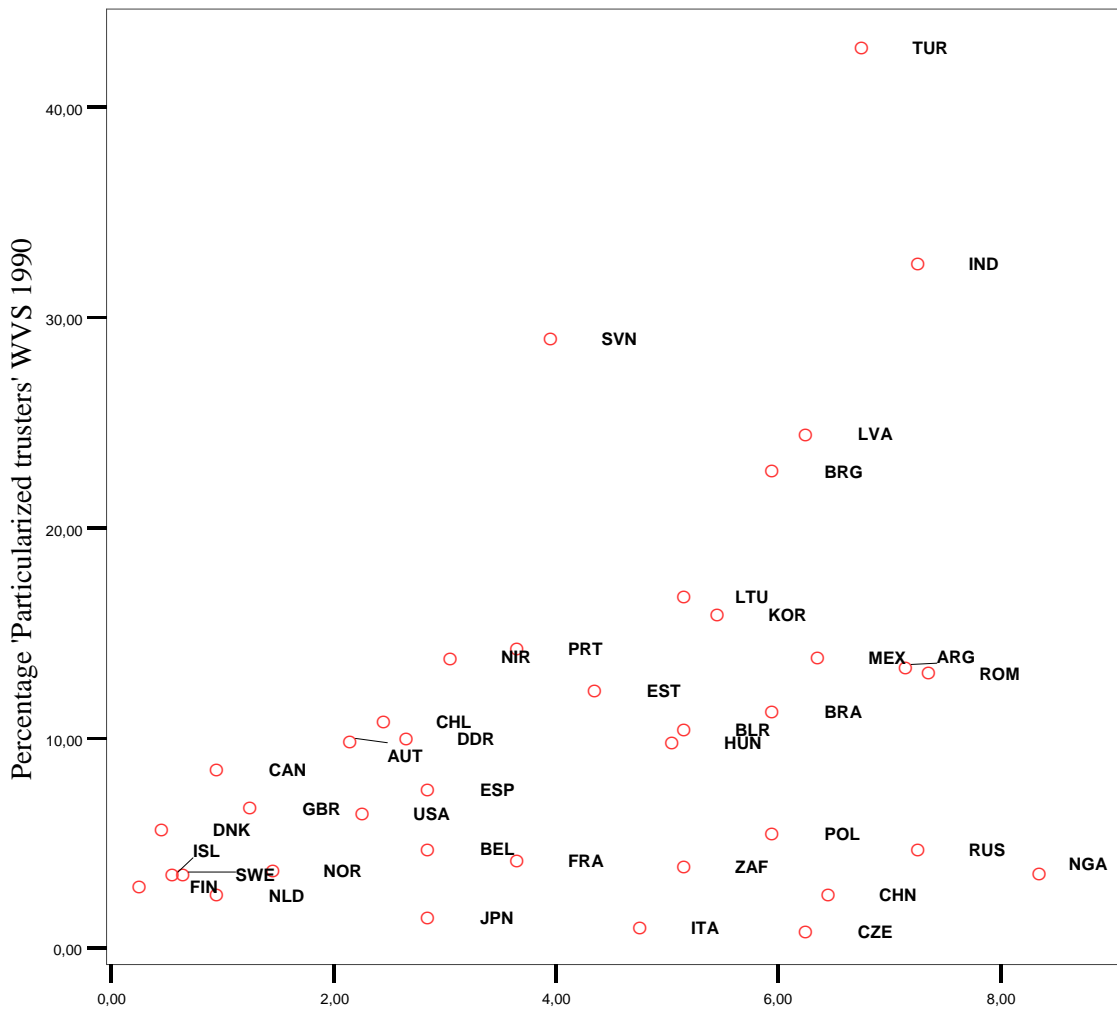


Figure 12. 'Generalized trust' 2000 and Corruption 2002



Percentage claiming 'most people can be trusted' in WVS 2000. Notes on Transparency Int. Corruption perception index see table 15. Country codes in appendix 2.

Figure 13. 'Particularized trust' 1990 and Corruption 2002



'Particularized trusters' are respondents who trust his/ hers family and his/ hers countrymen 'completely' but does not trust 'most people' in World Values Survey 1990. Notes on Transparency Int. Corruption perception index see table 15. Country codes in appendix 2.

### 5.7.4 Immigrant integration

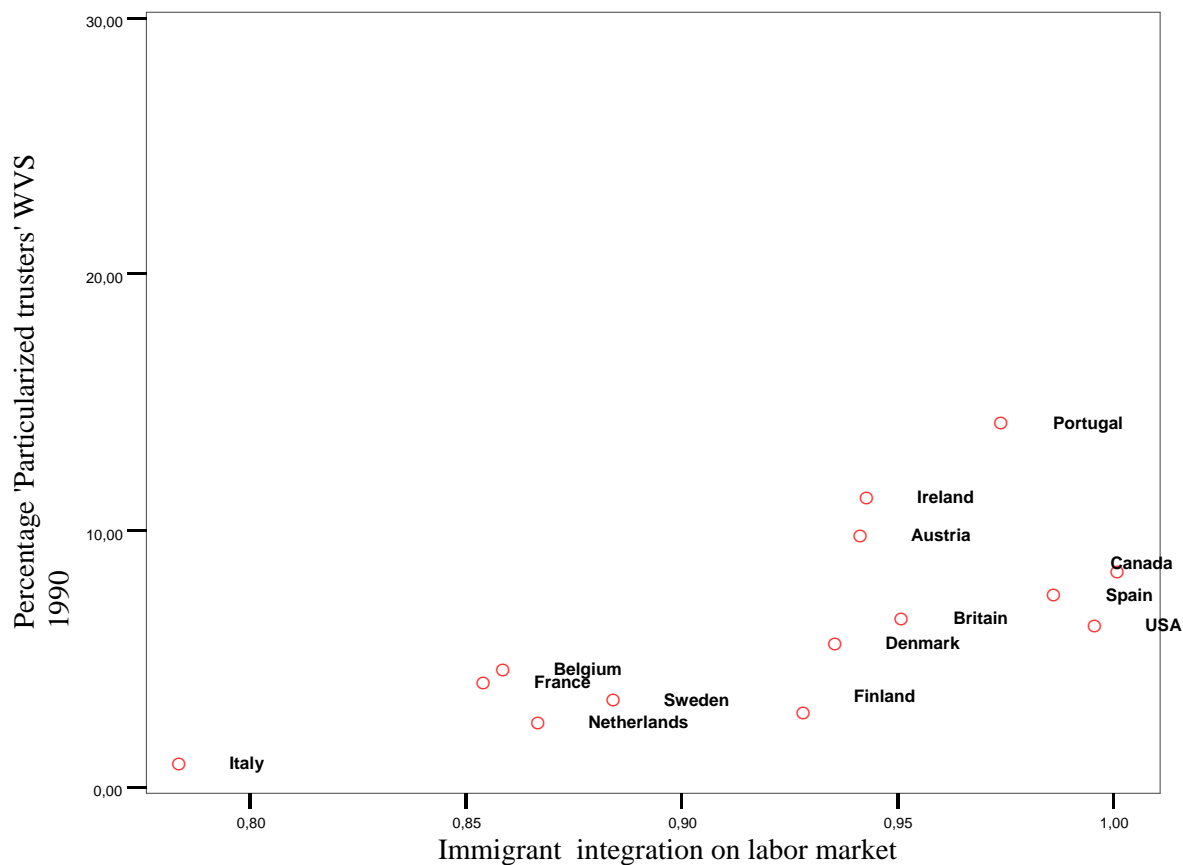
Comparing country averages, nor labor market immigrant or respondents feeling of discrimination is statistically significant correlated to 'Generalized trust'. In contradiction to my hypothesis, the integration variables are positively correlated to 'Particularized trust'. The better integration on the labor market the higher percentage 'Particularized trusters' and the lesser percentage respondents feeling discriminated the higher percentage 'Particularized trusters'. Whether the hypothesis concerning immigrant integration is false or whether the variables chosen to detect integration are blunt, has to be further analyzed. Though, with 14 and 18 countries the correlations are nevertheless statistically sensitive to outliers and deviant cases, and should not be over interpreted.

Table 16. Correlations between trust and immigrant integration

		'Generalized trust' WVS 2000	'Particularized trust' WVS 1990
Immigrant integration on labor market (Ratio of % unemployment among immigrants and the whole population)	Pearson Correlation	,197	,696(**)
	Sig. (2-tailed)	,433	,006
	N	18	14
Member of a group discriminated against in this country, (WVS respondents assessment)	Pearson Correlation	-,149	-,792(**)
	Sig. (2-tailed)	,499	,000
	N	23	18

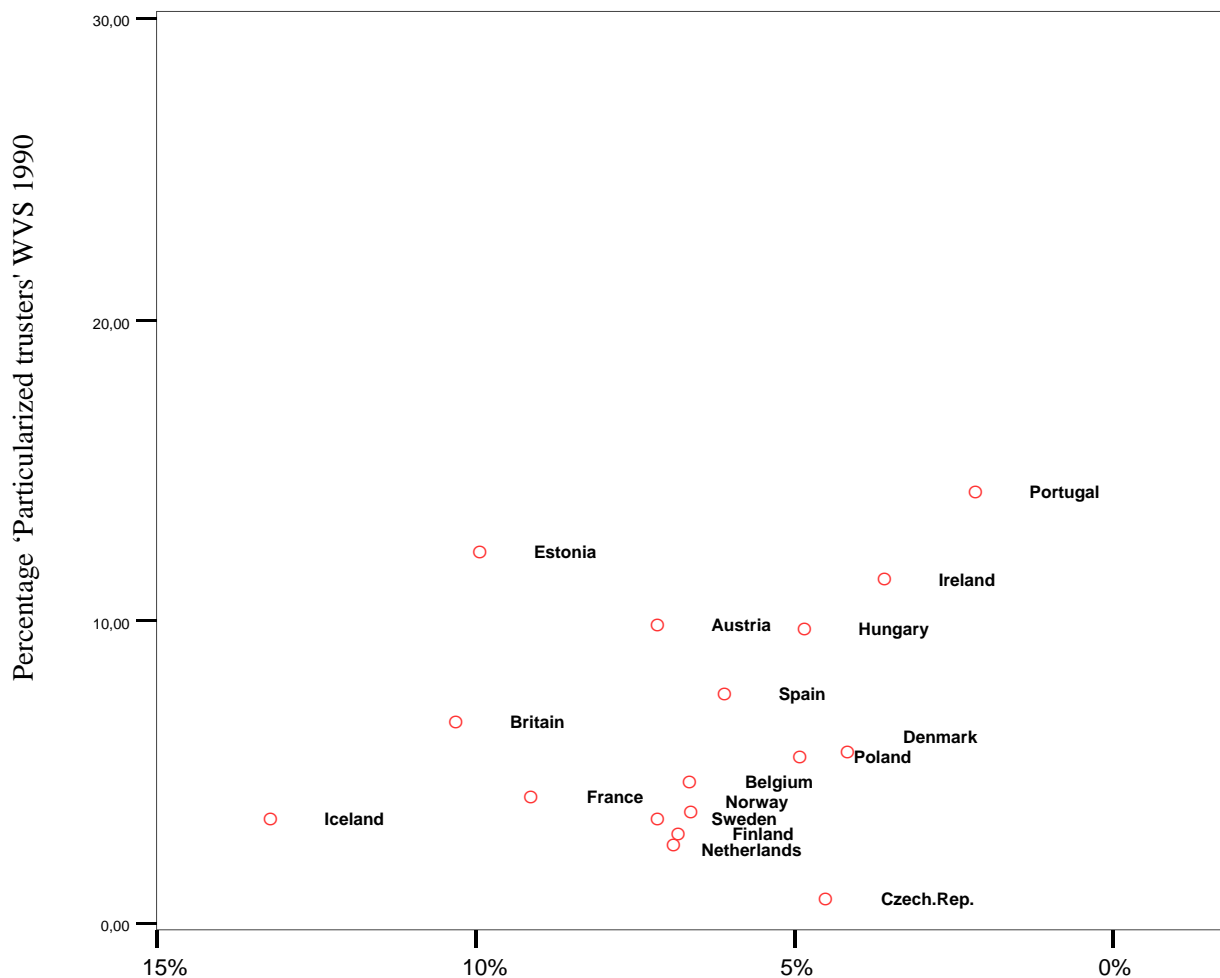
\*\* Correlation is significant at the 0.01 level (2-tailed).

Figure 14. 'Particularized trust' and immigrant integration 1990/ 2000



'Particularized trusters' are respondents who trust his/ hers family and his/ hers countrymen 'd does not trust 'most people' in World Values Survey 1990. Ratio of % Unemployment among immigrants and % unemployment among the whole population

Figure 15. 'Particularized trust' and discrimination WVS/ESS 2000



'Particularized trusters' are respondents who trust his/ hers family and his/ hers countrymen 'completely' but does not trust '*most people*' in World Values Survey 1990. Percentage of respondents claiming they belong to a discriminated group, Note. Rising percentage read from left to right

## 5.8 A regression of the effect of modernization, on trust.

The model based on the hypothesis includes:

- Modernization-index,
- Gender equality index,
- Percentage of respondents claiming ‘comfort from religion’,
- Gini-index of income,
- Expenditures on social security in percent of GDP,
- Corruption perception Index.

Since most aspects of modernization are inter correlated, they correlate with each other, it is difficult to statistically determine the direct effect of certain aspects of modernization. The fact that several modernization variables are inter correlated, e.g. that both gender equality and modernization-index correlates with each other ( $R = .803$ ), does not have to imply that the correlation are spurious. However, given the small number of countries with available data it is difficult to statistically determine (with significant results), what is a direct effect on trust and what is an indirect or spurious effect. In a combination with few observations (few countries with available data) even moderate multicollinearity renders statistical insignificance. Hence, the model does not include variables on; ‘immigrant integration’ and ‘quality of welfare state’. These variables are excluded since data for these variables were only available for 16 countries.

### 5.8.1 ‘Generalized trust’ as the dependent variable

Table 17. Linear regression of ‘Generalized trust’

Model	R Square	Adjusted R Square	R Square Change	N	Sig. F Change
1 (a)	,717	,658	,717	29	,000

a: Predictors: (Constant), Modernizationindex, Modernizationindex, Gender equality index (1990s), Comfort from religion in (WVS 2000). Gini-index of income (1990s), Expenditures on social security in percent of GDP (1996), Transparency Int. Corruption Perception Index 2002

R Square ,717 indicates that the modernization variables can predict 71,7 % of the linear variation of ‘Generalized trust’ among 29 countries, all variables in the model are significant. More interesting is perhaps to see the change in R Square in a stepwise regression using the same variables.

Table 17. countinued

Model	R Square	Adjusted R Square	R Square Change	N	Sig. F Change
1(a)	,232	,209	,232	34	,003
2 (b)	,471	,439	,239	33	,001
3 (c)	,630	,595	,159	32	,001
4 (d)	,639	,592	,009	31	,391
5 (e)	,660	,603	,021	30	,184
6 (f)	,717	,658	,057	29	,022

a: Predictors: (Constant), Modernizationindex

b: Predictors: (Constant), Modernizationindex, Gender equality index

c: Predictors: (Constant), Modernizationindex, Gender equality index, Comfort from religion.

d: Predictors: (Constant), Modernizationindex, Gender equality index, Comfort from religion. Gini-index of income (1990s)

e: Predictors: (Constant), Modernizationindex, Modernizationindex, Gender equality index, Comfort from religion. Gini-index of income (mean of -90, -95, -99), expenditures on social security in percent of GDP (1996)

f: Predictors: (Constant), Modernizationindex, Modernizationindex, Gender equality index, Comfort from religion. Gini-index of income (mean of -90, -95, -99), expenditures on social security in percent of GDP (1996), Transparency Int. Corruption Perception Index 2002

As indicated by the stepwise regression the modernization index explains 23.2% of the variance of ‘Generalized trust’ among countries. This percentage increases sharply when ‘gender equality’ is included in the regression analyses. An total R square of ,717 for the model, indicates a strong link between modernization/ intermediate variables and ‘Generalized trust’. The increase in R Square from .232 to .717 indicates that ‘gender equality’ and the intermediate variables have a strong effect. Though, due to multicollinearity the importance of each variable separately can not be analyzed, or in other words the effect of ‘Model’ 2- 6 has to be cautiously interpreted in this regression. Model nr 4 (income distribution added) and 5 (expenditure on social security added) is not significant (sig. ,391 resp. ,184). Both the R square and the statistical significance of the variables are to a large degree decided by the sequence they are entered in the regression analyses.

### 5.8.2 ‘Particularized trust’ as the dependent variable

In a regression analyses with ‘Particularized trust’ as the dependent variable, R square is .518, hence the model explains 51.8 % of the linear variance of ‘Particularized trust’ in 21 countries. While the model as a whole is significant, the only single variable being significant is ‘Comfort from religion’ (sig.073), indicating that there is a relationship.

Though, due to multicollinearity, and the limited number of countries analyzed, the importance of each variable can not be estimated.

The linear regression in the preceding chapter indicated that only some of the variation in trust could be attributed to modernization variables but a much greater part could be attributed to the intermediate variables.

## 5.9. Summary of statistical analyses

Since the result of this multi level statistical analysis might be difficult to comprehend, a summary is needed. I will here summarize findings relevant to each hypothesis.

*-Hypotheses: 'Material needs satisfaction renders an increase in 'Generalized trust and an decrease in 'Particularized trust':*

Findings from the statistical analyses of both the individual level and country level strengthens the thesis of 'material needs satisfaction' as the basis of trust. At the individual level high income earners are more likely to be 'Generalized trusters' and less likely to be 'Particularized trusters'. At country level, rich countries have more 'Generalized trusters' and fewer 'Particularized trusters'. There are however indications that the link between wealth and trust is not a linear relation. Since respondents from 'upper medium income countries' are more likely to be Generalized trusters than respondents from 'high income countries', there seems to be a diminishing return in the relation between wealth and 'Generalized trust'. Analyzing the individual level data is it apparent that living in a rich (enough) country matters more than personal wealth.

-Hypotheses: *The reduced dependence of family and kin and the increased reliance on the state renders an increase in Generalized and a decrease in Particularized trust.* The change in dependence/ reliance is by it turn due to:

#### *-Defamilization*

The hypothesis on defamilization and family values/ situation is strengthened at both the individual and the country level. Patriarchal values are typical of the Particularized trust and atypical of the Generalized trust. Though, the respondents family situation seems to be irrelevant to both types of trust. Comparing countries, variables indicating defamilization is negatively correlated with 'Particularized trust' and positively correlated with 'Generalized trust'. As indicated by the linear regression of Generalized trust, defamilization or gender equality does appear to have an effect separated from other aspects of modernization (modernizationindex). The correlation coefficient of ,819 pearson's r between 'Gender equality index' and 'Generalized trust' indicates an almost perfect linear relationship. I would argue that defamilization plays a key role in explaining changes in trust.

#### *-Diversification of workforce and education'*

The link between the diversity of workforce and trust is strengthened. As predicted, people working in diverse workplaces are more likely to be Generalized trusters and less likely to be 'Particularized trusters' compared to people working in none diverse workplaces e.g. agriculture. Countries with a high percentage employed in the service sector has a correspondingly high percentage 'Generalized trusters' and countries with a high percentage agricultural workers are more likely to have a large share Particularized trusters. The link between education and trust is even more robust. Though it might be argued that it is not the form of schooling, or conditions at the workplace, that promotes trust but rather a self selection process. People (or kids) brought up to trust chooses e.g. university education, while people brought up distrusting makes different 'choices'.



### *-Urbanization*

The urbanization hypothesis is weakened in this analysis. In fact, people living in villages (<2000 inhabitants) are slightly more likely to be 'Generalized trusters than metropolis dwellers. Though, in spite of popular belief, respondents from big towns are not less trusting of strangers (Generalized trust) than respondents from small towns. The supposed alienation of metropolitan dwellers is at least not expressed in distrust of strangers. At the country level are there no link between urbanization and 'Generalized trust', though, urbanization is weakly negatively correlated with 'Particularized trust'.

*Hypotheses: Religion separates ethnic groups, and believers from nonbelievers, hence, secularization contributes to an increase in Generalized trust and a decrease in 'Particularized trust'.*

The link between secularization and trust can not be affirmed nor dismissed. At the individual level, people finding 'God very important' are more likely to be 'Particularized trusters' and people belonging to the sectarian congregation of Jehovah's witness are much less likely to be 'Generalized trusters'. Except for frequent church visits, which is conducive to 'Generalized trust' were none of the other religiosity variables significant. The fact that members of a (at least one) sectarian church proved to be less trusting than respondents not member of any church indicates that religiosity can have a bonding and exclusionary effect.

*Hypothesis: Increased equality of income and equality of opportunity generates 'Generalized trust' and weakens 'Particularized trust'.*

The hypothesis on equality is strengthened at in the country level analysis. Though, the results from the individual level analysis were more dubious. Background variables, modernization, religiosity and family situation/ values held constant, are respondents from 'upper medium equality countries' more likely to be 'Generalized trusters ' than respondents from 'high equality countries. Another indication of the importance of equality is the fall in levels of 'Generalized trust' in the UK and USA, countries which has

experienced a fall in income equality during the last two decades. The Scandinavian countries and the Netherlands, which has experienced an increase in equality, has had stable or rising levels of Generalized trust during the same period<sup>39</sup>

*Hypothesis: An extensive and universal welfare state is conducive to 'Generalized trust' and detrimental to Particularized trust.*

The hypothesis is strengthened, though due to the small number of welfare states the statistical analysis sensitive to outliers. Among industrialized countries with any kind of welfare state, the Scandinavian countries, all with a universal welfare state, has the highest percentage 'Generalized trusters'. Countries with a conservative welfare state, mostly German speaking, has the lowest percentage 'Generalized trusters'. Countries with a liberal welfare state, mostly Anglo Saxon, rank in between. From this analysis it is however not possible to conclude in which way or how welfare states affects trust. My proposal however, is that the effect of welfare states on trust primarily is in reducing the importance of family and kin, or in other words 'defamilization' and not in reducing inequality.

*Hypothesis: Fair and trustworthy government institutions and the absence of corruption nourishes 'Generalized trust' and weakens 'Particularized trust'.*

The hypothesis is strengthened in this analysis. Among respondents from 'developed countries' does the odds of being a 'truster' increase sharply comparing respondents from 'medium corruption countries' to respondents from low corruption countries. In the country level analysis all six variables on public and government corruption is clearly linked to both 'Generalized' and 'Particularized' trust. I line with the argumentation of Rothstein, I would argue that the most demoralizing form of corruption is corruption in the judicial system.

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<sup>39</sup> Inequality data from Veenhoven, R

Hypothesis: *A successful integration of immigrants is conducive to 'Generalized trust' and is detrimental to 'Particularized trust'.*

The hypothesis on immigrant integration is contradicted in this analysis. While there are no statistically significant results on the link between integration and 'Generalized trust' there is actually a positive link between a high degree of immigrant labor market integration and 'Particularized trust'. It can however be argued that integration of immigrants in the labor market does not reflect all aspects of integration but rather labor market flexibility.

Though not affirmed in this analysis, I would say due to blunt variables, I do believe that there exists a trade off between trust and immigrant integration. Another conclusion is that an active, and politically motivated, integration policy might be less effective integrating immigrants than a flexible labor market. According to a recent EU study, ranking member states in immigrant integration policies, Sweden was the most integration friendly member state while Austria was the third least integration friendly<sup>40</sup>. This in contrast to the 'employment ratio' variable, where Austria is among the best countries in employing immigrants and Sweden is among the worst countries (figure 13).

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<sup>40</sup> Migrant Integration Policy Index, on: <http://www.integrationindex.eu/> at 15.10.2007

## 6. Conclusions

While some aspects of the hypothesis could not be affirmed and others were contradicted my general conclusion is that I have been able to show a relatively strong relationship between modernization and trust. Though, I would argue that the kind of modernization that has the strongest effect on trust is a form of modernization that is not easily tangible or measurable. This fact is not the least indicated by the strong unexplained effect of 'country of residence' in the individual level analysis. As Roland Inglehart (1997), I would argue that 'Generalized trust' is in fact a post modern value, in line with other post modern values, such as the growing concern for the environment among 'modernized individuals'. Though, I would argue that 'post modern values' are not only affected by economic and structural modernization but to a large extent also by political decision and culture. As such, the relative absence of trust among e.g. Italians can not only be understood in terms of structural modernization, but historical circumstances and culture has also to be accounted for. Explaining human activity, as e.g. the level of trust in countries, by culture, is controversial in current social sciences since cultural explanations carries a ballast of ethnocentrism, racism etc.

Though, the adaptability and flexibility of human behavior indicates that neither societies nor individuals are doomed to an eternal state of mistrust. It would however be wishful thinking to expect that the historical experience of different societies does not give some societies a head start while it holds other societies back. As Putnam, I find it hard to believe that historical experiences of slavery or feudalism a few generations ago would not influence levels of trust and Social Capital today. Likewise, do I find it convincing that the 'historical experience' of the universal welfare state will influence levels of trust and Social Capital among future generation Scandinavians. When scholars as e.g. Bo Rothstein, dismisses culture as an explanation to different levels of Social Capital, culture referred to as 'origin', I read a deterministic understanding of the concept of culture (2003a:194,224). I do not agree in that cultural explanations 'reduce the agents to more or less, cultural or structural 'dopes' as Rothstein writes (2004b:5), nor that cultural explanations implies that certain countries has a 'path dependent' future.

The high levels of Generalized trust in certain societies are, in my view due to modernization, as described and analyzed in this hypothesis, and partly due to historical experiences which has facilitated successful institution building. There is not something inherently trusting in ‘high trust’ societies, but rather a set of fortunate preconditions that has facilitated a culture of trust in these societies.

The prevalence of free, self owned farmers over feudalism and slavery during the era of institution building is one such important historical background for the relative success in solving cooperative problems in Scandinavia. Self owned farmers were however rather a consequence of the incapability of rulers to exploit the masses in rural and inaccessible Scandinavia, than due to an inherently ‘free loving character’ of Scandinavians. Giving culture an explanatory value is not the same as explaining lack of Social Capital by ‘ancient traditions’ or ‘national character’. Claiming that historical experiences gives some societies a head start does not mean that culture alone is an satisfactory explanation for the stark variation of trust today, nor does it rule out the role of institutions or distribution of power and wealth.

The Putnam version of Social Capital has been promoted by scholars with a conservative agenda, since it is perceived to be the remedy for modern world human alienation. Market liberal scholars has also appreciated Putnam’s communitarian understanding of Social Capital since it gives reason to cut taxes and stop governments interfering in people’s daily life. Espen Hammer, professor of philosophy at the University of Oslo, gives us one reason for the appeal of ‘the Putnam Social Capital’;

*‘There is a conservative dream of the tightly knit fellowship, kept together with large amounts of social glue. The more insecure and alienated we get the more we long for it’ (2005:13)*

However, I believe that focusing on ‘the glue’ might be more harmful than beneficial in the diverse societies of the 21 century. While interactions mainly used to take place in between known others we are now increasingly dealing with unknown others. This is why impartiality and universalism has to rule out particularism and ethnocentrism. This crucial insight for the modern multiethnic society is expressed by Paul Seabright in *The Company of strangers*;

*In a smoothly functioning modern society, you can trust me to transact reasonably with you not because of my character and personality (about which you know little and care less), nor because you share my religion or my politics (which may repel you), nor because you know my family, but simply because of the social space we share. If it is to survive future challenges, such a social space needs constructions through institutions (including systems of education) that are blind to all the particularities of individuals except those that are strictly necessary for their interaction. In a word, it requires a degree of impartiality. (2004, s252)*

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## Appendix 1.

Interpretation of logistic regression table. E.g. table 1 is interpreted as this: An odds ratio<sup>41</sup> of ,928 indicates that women are slightly less likely than men (the reference group) to be ‘Generalized trusters’ ( $,928 < 1$ , 1 would indicate no difference at all). An odds ratio ,729 for respondents 15-29 years old indicates that they are clearly less likely than the respondents 30-49 years old (the reference group) to be ‘Generalized trusters’ ( $,729 < 1$ ). An odd ratio of 1,171 indicates that respondents 50-69 years old are more likely to be ‘Generalized trusters’ than the reference group of 30-49 years old ( $1,171 > 1$ ).

## Appendix 2.

### Country codes for interpretation of scatterplots

AFGHANISTAN	AFG	CZECH REPUBLIC	CZE	KIRIBATI	KIR
ALBANIA	ALB	DENMARK	DNK	KOREA, D.P.R.O.	PRK
ALGERIA	DZA	DJIBOUTI	DJI	KOREA, REPUBLIC OF	KOR
AMERICAN SAMOA	ASM	DOMINICA	DMA	KUWAIT	KWT
ANDORRA	AND	DOMINICAN REPUBLIC	DOM	KYRGYZSTAN	KGZ
ANGOLA	AGO	EAST TIMOR	TMP	LAOS	LAO
ANGUILLA	AIA	ECUADOR	ECU	LATVIA	LVA
ANTARCTICA	ATA	EGYPT	EGY	LEBANON	LBN
ANTIGUA AND BARBUDA	ATG	EL SALVADOR	SLV	LESOTHO	LSO
ARGENTINA	ARG	EQUATORIAL GUINEA	GNQ	LIBERIA	LBR
ARMENIA	ARM	ERITREA	ERI	LIBYAN ARAB JAMAHIRIYA	LBY
ARUBA	ABW	ESTONIA	EST	LIECHTENSTEIN	LIE
AUSTRALIA	AUS	ETHIOPIA	ETH	LITHUANIA	LTU
AUSTRIA	AUT	FALKLAND ISLANDS (MALVINAS)	FLK	LUXEMBOURG	LUX
AZERBAIJAN	AZE	FAROE ISLANDS	FRO	MACAU	MAC
BAHAMAS	BHS	FIJI	FJI	MACEDONIA	MKD
BAHRAIN	BHR	FINLAND	FIN	MADAGASCAR	MDG
BANGLADESH	BGD	FRANCE	FRA	MALAWI	MWI
BARBADOS	BRB	FRANCE, METROPOLITAN	FXX	MALAYSIA	MYS
BELARUS	BLR	FRENCH GUIANA	GUF	MALDIVES	MDV
BELGIUM	BEL	FRENCH POLYNESIA	PYF	MALI	MLI
BELIZE	BLZ	FRENCH SOUTHERN TERRITORIES	ATF	MALTA	MLT
BENIN	BEN	GABON	GAB	MARSHALL ISLANDS	MHL
BERMUDA	BMU	GAMBIA	GMB	MARTINIQUE	MTQ
BHUTAN	BTN	GEORGIA	GEO	MAURITANIA	MRT
BOLIVIA	BOL	GERMANY	DEU	MAURITIUS	MUS

<sup>41</sup> The odds ratio is a way of comparing whether the probability of a certain event is the same for two groups. An odds ratio of 1 implies that the event is equally likely in both groups. An odds ratio greater than one, implies that the event is more likely in the first group. An odds ratio less than one imply that the event is less likely in the first group. The odds of an event happening is the probability that the event will happen divided by the probability that the event will not happen. An odds ratio is calculated by dividing the odds in group 1 by the odds in group 2.

BOSNIA AND HERZEGOWINA	BIH	GHANA	GHA	MAYOTTE	MYT
BOTSWANA	BWA	GIBRALTAR	GIB	MEXICO	MEX
BOUVET ISLAND	BVT	GREECE	GRC	MICRONESIA, FEDERATED STATES OF	FSM
BRAZIL	BRA	GREENLAND	GRL	MOLDOVA, REPUBLIC OF	MDA
BRITISH INDIAN OCEAN TERRITORY	IOT	GRENADA	GRD	MONACO	MCO
BRUNEI DARUSSALAM	BRN	GUADELOUPE	GLP	MONGOLIA	MNG
BULGARIA	BGR	GUAM	GUM	MONTERRAT	MSR
BURKINA FASO	BFA	GUATEMALA	GTM	MOROCCO	MAR
BURUNDI	BDI	GUINEA	GIN	MOZAMBIQUE	MOZ
CAMBODIA	KHM	GUINEA-BISSAU	GNB	MYANMAR (Burma)	MMR
CAMEROON	CMR	GUYANA	GUY	NAMIBIA	NAM
CANADA	CAN	HAITI	HTI	NAURU	NRU
CAPE VERDE	CPV	HEARD AND MC DONALD ISLANDS	HMD	NEPAL	NPL
CAYMAN ISLANDS	CYM	HOLY SEE (VATICAN CITY STATE)	VAT	NETHERLANDS	NLD
CENTRAL AFRICAN REPUBLIC	CAF	HONDURAS	HND	NETHERLANDS ANTILLES	ANT
CHAD	TCD	HONG KONG	HKG	NEW CALEDONIA	NCL
CHILE	CHL	HUNGARY	HUN	NEW ZEALAND	NZL
CHINA	CHN	ICELAND	ISL	NICARAGUA	NIC
CHRISTMAS ISLAND	CXR	INDIA	IND	NIGER	NER
COCOS (KEELING) ISLANDS	CCK	INDONESIA	IDN	NIGERIA	NGA
COLOMBIA	COL	IRAN (ISLAMIC REPUBLIC OF)	IRN	NIUE	NIU
COMOROS	COM	IRAQ	IRQ	NORFOLK ISLAND	NFK
CONGO	COG	IRELAND	IRL	NORTHERN MARIANA ISLANDS	MNP
CONGO, THE DRC	COD	ISRAEL	ISR	NORWAY	NOR
COOK ISLANDS	COK	ITALY	ITA	OMAN	OMN
COSTA RICA	CRI	JAMAICA	JAM	PAKISTAN	PAK
COTE D'IVOIRE	CIV	JAPAN	JPN	PALAU	PLW
CROATIA (local name: Hrvatska)	HRV	JORDAN	JOR	PANAMA	PAN
CUBA	CUB	KAZAKHSTAN	KAZ	PAPUA NEW GUINEA	PNG
CYPRUS	CYP	KENYA	KEN	PARAGUAY	PRY
PERU	PER	SLOVENIA	SVN	TRINIDAD AND TOBAGO	TTO
PHILIPPINES	PHL	SOLOMON ISLANDS	SLB	TUNISIA	TUN
POLAND	POL	SOMALIA	SOM	TURKEY	TUR
PORTUGAL	PRT	SOUTH AFRICA	ZAF	TURKMENISTAN	TKM
PUERTO RICO	PRI	SPAIN	ESP	TUVALU	TUV
QATAR	QAT	SRI LANKA	LKA	UGANDA	UGA
ROMANIA	ROM	ST. HELENA	SHN	UKRAINE	UKR
RUSSIAN FEDERATION	RUS	SUDAN	SDN	UNITED ARAB EMIRATES	ARE
RWANDA	RWA	SURINAME	SUR	UNITED KINGDOM	GBR
SAINT KITTS AND NEVIS	KNA	SWAZILAND	SWZ	UNITED STATES	USA
SAMOA	WSM	SWEDEN	SWE	URUGUAY	URY
SAN MARINO	SMR	SWITZERLAND	CHE	UZBEKISTAN	UZB
SAO TOME AND PRINCIPE	STP	SYRIAN ARAB REPUBLIC	SYR	VANUATU	VUT
SAUDI ARABIA	SAU	TAIWAN, PROVINCE OF CHINA	TWN	VENEZUELA	VEN
SENEGAL	SEN	TAJIKISTAN	TJK	VIET NAM	VNM
SEYCHELLES	SYC	TANZANIA, UNITED REPUBLIC OF	TZA	WESTERN SAHARA	ESH
SIERRA LEONE	SLE	THAILAND	THA	YEMEN	YEM
SINGAPORE	SGP	TOGO	TGO	YUGOSLAVIA (Serbia and Montenegro)	YUG
SLOVAKIA (Slovak Republic)	SVK	TONGA	TON	ZAMBIA	ZMB
				ZIMBABWE	ZWE

