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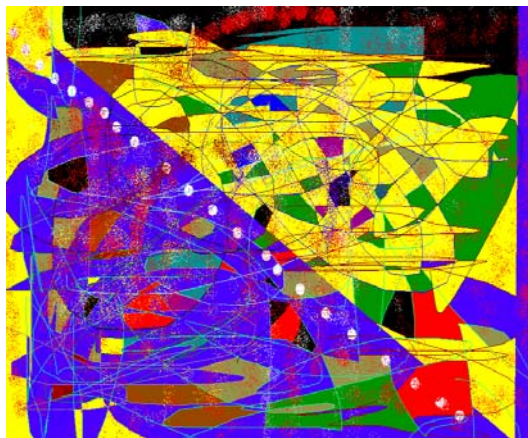
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- **Generalised trust in
Bosnia and Herzegovina**

by
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Sarah Hargreaves

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0 Summary

The study enables us to see that the people of Bosnia Herzegovina are less trusting in 2003 than they were in 1998. In this study, 14.5% of respondents believed they could trust most people, compared with 84.2% who believed one generally had to be careful when dealing with people. In 1998, World Values Survey (WVS) data indicated that 26.9% of respondents trusted in general.

At the 1998 levels of generalised trust, Bosnia Herzegovina was in among the mid-level trusting countries included in the WVS. If we transpose the 2003 levels of generalised trust into the 1998 WVS 'league table' of generalised trust, Bosnia Herzegovina would land in the middle to lower end of the spectrum.

Crucially, this 12 percent drop in generalised trust has contributed to a shortfall in economic growth of around 1 percentage point, roughly equivalent to a yearly loss of 100 million KM.

The study data reveals a range of trust behaviour. Trust in family members is extremely high in line with tradition in Bosnia Herzegovina. There is a significant decrease in level of trust when respondents are asked how much they trust 'people they know well' and 'neighbours', and another step down when the question is more general and related to trust in 'people of the same ethnic group', 'people of other ethnic groups' and 'people with a different way of life'.

However, the findings go some way towards disproving the idea that individuals in Bosnia Herzegovina harbour an intransigent distrust of people of the other nationalities. We conclude that generalised trust is low, but low trust is by no means exclusively related to nationality.

The study also identifies major differences in levels of generalised trust across the regions and cantons of Bosnia Herzegovina

In the main body of the report, we investigate 'who trusts and why?' by examining a number of variables identified in the literature. From the results, we report a basic socio-demographic model of the generalised truster in Bosnia Herzegovina.

- Against expectations the likelihood of an individual being a general trustor **decreases** if he or she is aged 36-50 years and/or has a secondary or tertiary education.
- According to expectation, the likelihood of an individual being a general trustor **increases** if he or she has a higher financial status and/or lives in an ethnically more homogeneous region/canton.

A respondent's gender, whether they are from a region/canton with more or less income inequality and whether they live in a rural or urban setting were not significant.

We then extend the basic model based on four current theories explaining the generation of trust. The likelihood of a respondent being a general trustor **increases** if:

- He or she is an active member of an association
- Trusts the government and/or welfare services
- Has life experiences that reinforce a trusting attitude.

On the basis of theory and comparing variables over time, we suggest that generalised trust has decreased in part due to: decreasing associational membership and decreasing trust in the governments and public services.

Since real income has increased during the period 1998 to 2003, we cannot say that decreasing trust is related to income despite. However, we propose that future research might usefully investigate the relationship between financial satisfaction and generalised trust.

On the basis of the findings of this study, a policy to generate trust would include initiatives to:

- ⇒ Increase associational membership, perhaps by investing in community-based organisations that would appeal to the 6 out of 10 respondents who are not currently members of any group or association.
- ⇒ Improve governance and deal with corruption throughout political life and throughout the public services.
- ⇒ Create meeting points that increase opportunities for contact between people of different nationalities and between people with different ways of life in general; in the school system, work, social and associational life.
- ⇒ Improve financial status across the country, and guard against increasing income inequalities.
- ⇒ Focus on low trust regions/cantons.

Overall, the picture with respect to trust between people of the different nationalities, and the effects on trust of contact between nationalities and across social divides is brighter than might have been expected, and sharing this information with citizens may have a positive impact on the political process and counter anxiety around the issues of return and a multiethnic Bosnia Herzegovina.

We call for further research to follow trends in generalised trust and related variables over time, to examine relationships of causality between generalised trust and related variables, to understand the context specific behaviour of certain variables, and to examine policies and interventions for their effects on generalised trust in Bosnia Herzegovina.

1 Introduction

1.1 *Why is social trust important?*

Social trust and social capital are probably the most heated and discussed subjects today in social science. Social capital has been defined as generalised trust, reciprocity and networks (Putnam 1993). Generalised trust is defined as trusting most people, including both people you know well *and* strangers.

Different scientists have entered the subject in different ways since the beginning of the 1990s. Douglass North highlights the subject from an economist's perspective.¹ He points out that the neo-classical approach as seeing the human being as strictly rational and maximizing personal utility is not satisfying. If economic prosperity is to be understood, economists also have to understand what he calls the institutions. North puts a wide perspective on institutions and includes cultural differences like morals in the concept.

According to North, generalised trust is essential for economic prosperity. If trust is low, the costs of doing business (transaction costs) will be so high that the economic transaction will not take place. Other researchers have found empirical proof for that generalised trust effects investment as well as economic growth.²

According to Robert Putnam³ social capital oils the wheels of democratisation and works towards safe and productive neighbourhoods, health and happiness.

It seems like social capital is a far-reaching medicine that can cure everything. However, what drives and explains social capital is still an open question. This study will focus on social trust in Bosnia and Herzegovina (BiH). We will explore the explanatory variables behind social trust and also look at how social trust has developed over time.

¹ North (1990)

² ... even if causality is hard to proof and, of course, can be discussed in the kind of methodology that has been used. See Zak & Knack (2001) and Knack & Keefer (1997).

³ Putnam (2000)

1.2 Social trust in Bosnia-Herzegovina

Levels of social trust in Bosnia-Herzegovina (BiH) would be expected to be low following the 1992-1995 conflict and the recent difficult period of political and economic reform. Corruption and a lack of transparency are perceived as mainstays in BiH administrative procedures (UNDP 2003a), and the civil society is weak and lacking in vision with no framework for cooperation with the government (UNDP 2003b). Thus, social capital development is expected to be severely compromised.

Perhaps this is why recent survey work has neglected to track generalised trust. We believe this neglect is a mistake on two counts. First, because generalised trust has been shown to be an effective indicator of critical development processes; second, because without knowledge of levels of generalised trust and an analysis of factors affecting that trust it is problematic to make recommendations regarding the development of social capital.

We think it is very important to follow the development of social capital in BiH over the years to come. We believe it is a key to a prosperous and peaceful development in BiH.

1.3 The Project

The idea with this project is to provide a measure of generalised trust in Bosnia and Herzegovina (BiH).

This project will thereby try to obtain a baseline analysis of the relationships between generalised trust and: (i) membership of associations and other types of contact; (ii) trust in various types of state institutions and bodies; (iii) partial trust and the relationships between nationality and generalised trust; (iv) perceived financial status.

1.3.1 Method

The Social trust survey, December 2003 was conducted as a face-to-face interview as part of the bi-monthly Omnibus survey implemented by Prism Research.⁴

The sample size was 1858 respondents. Except for the actual questions on social trust, the survey also yields basic demographic measures as well as the socio-economic status of respondents.

The data has been analysed using quantitative methods. The computer programme that has been used is Stata Statistical Software: Release 6.0.⁵

⁴ For more information on the survey methods see appendix 4.

⁵ More about the methodology on multiple regressions and the logit regression can be read in the Stats reference manual StatsCorp 1999, College Station TX, or www.stata.com

1.3.2 Content of the report

In chapter 2, some of the major theories are briefly described. To use theory as a starting point is very important in a study like this. A theory that is well defined and well kept together (lacks loose ends), helps us to interpret the results and to understand society.

In chapter 3 we investigate some socio-demographic variables that have been shown in other studies to be related to generalised trust. The variables are estimated in a multiple logit regression model and the results give us a good picture of who trusts people in general. Different researchers have ideas and hypothesis why some variables are related to generalised trust. We refer to this discussion. This puts us in a position with better understanding of why some socio-demographic variables effect generalised trust.

We look further into who trusts whom in chapter 4. We are specifically interested in trust over nationality boundaries.

In chapter 5 we estimate the models described in the Theory-chapter, trying to move further from the question “Who trust?” to “Why”.

To put our result in context we make a couple of comparisons in chapter 6 and 7. In chapter 6, we take a step back and explore the data from the World Value Survey (WVS) 1998. We compare BiH with the other countries in the WVS. In chapter 7, we compare the WVS data from 1998 with our data from December 2003. This gives us a comparison over time.

2 Theory

“The importance of trust pervades the most diverse situations where cooperation is at one and the same time a vital and fragile commodity: from marriage to economic development, from buying a second-hand car to international affairs, from the minutiae of social life to the continuation of life on earth.” (Gambetta 1988 ii)

An ongoing debate in the social sciences centres on the role of social capital as a key resource for societies. Social capital has been defined as generalised trust, reciprocity and networks (Putnam 1993).

Research in diverse fields relates high levels of social capital to the promotion of democratisation, responsive and well-performing institutions, low levels of violence and other criminal behaviours, as well as individual health and personal happiness (Newton 1999; Ingelhart 1999; La Porta 1997; Putnam 2000; Baum 1997).

Generalised trust extends beyond the boundaries of face-to-face interaction and incorporates people who are not personally known. It is proposed that this type of trust reduces uncertainty about the future and the need for people to continually make provisions for the possibility of opportunistic behaviour by others (Rothstein 2003).

In this chapter, the major models that have emerged from the work on generalised trust are outlined.

2.1 The association membership model

Prominent authors have argued that variations in the amount and type of social capital can be explained primarily by society-centred approaches (Banfield 1958; Fukuyama 1999; Putnam 1993). These accounts see the most important mechanism for the generation of social capital as regular social interaction, preferably as membership in voluntary associations, though more informal types of social interactions have been included in later work.

Putnam (2000) proposes that, through affiliation, people learn the basic norms of cooperation and reciprocity and learn to trust each other. However, he admits that there is much to learn before we can be certain of this vision.

“The causal arrows among civic involvement, reciprocity, honesty and social trust are as tangles as well-tossed spaghetti. Only careful, even experimental, research will be able to sort them apart definitively. For present purposes, however, we need to recognise that they form a coherent syndrome.” (Putnam 2000 p.137)

There are several critiques of Putnam’s theory. Uslaner (2002) argues that people who join associations, so called ‘joiners’, appear to be more trusting from the outset, so that it is not the associational membership *per se* that explains their higher level of trust. In addition, Stolle (1991) shows that members of associations do not become more trusting over time.

Of particular relevance to Bosnia Herzegovina, is the argument that where societies are polarised by ethnic, political, religious or income differences, associations may also be polarised along the same lines. Relatively homogenous associations in heterogeneous societies may strengthen trust and cooperative norms within the group, but weaken trust and cooperative norms between groups (Knack and Keefer 1997; p.1278).

There appear to be important differences between bonding and bridging social capital. Bonding social capital is that built within networks of people who are basically alike. Bridging social capital, on the other hand, is built within networks that link diverse groups of people and institutions. Bridging social capital is considered particularly predictive of societal well-being and economic growth (Putnam 2000).

Knack and Keefer (1997) found that membership in certain types of organisation with re-distributive objectives (for example trades union) did appear to be associated with higher levels of generalised trust. Membership in other cultural and recreational groups appeared to have no effect on generalised trust, and membership in religious organisations was associated with a decreased level of generalised trust. They conclude that membership in associations overall was not associated with increased trust.

In recent years in Bosnia Herzegovina, there has been considerable investment in initiatives to strengthen the capacity of civil society organisations to act on behalf of their constituencies and when appropriate as an effective opposition to the Government. Much of the investment has gone towards the creation of Western style non-governmental organisations, a policy that has been subject to criticism (Pavic 2001).

In light of such investment, it is especially interesting to ask whether associational membership contributes to increasing levels of generalised trust as an additional positive outcome for society.

2.2 The contact model

Contact has also been explored as a factor that increases or decreases ethnic prejudice (Allport 1954; Pettigrew 1971), depending on the conditions in which contact takes place. The main conditions for the positive effects of contact are when groups: possess equal status; seek common goals; are cooperatively dependent on each other, and interact with the positive support of authorities, laws or customs.

The extents to which these conditions for positive contact are met in practical terms in Bosnia Herzegovina are open to discussion. In principle, equality exists and support for contact from authorities exists. However, recent survey work (UNDP, in preparation) highlights that there is still suspicion among the population that the three nationalities do not share a common vision regarding the future of Bosnia Herzegovina.

The contact model has been criticised for focusing largely on the individual's response to contact. Critics (Blumer 1958) suggest that individual feelings are overridden by group positions on the issue of prejudice.

In Bosnia Herzegovina, questions concerning prejudice among the different nationalities persist. As prejudice may encompass issues around trust, we will in this study examine contact as a factor in building generalised trust.

Reconciliation based on creating opportunities for inter-ethnic contact has been an objective for many international projects. Is promoting contact worthwhile in terms of the trust it generates?

2.3 The institutional trust model

According to another account, social capital does not exist independently of politics or government in the realm of civil society. Instead, government policies and political institutions create, channel and influence the amount and type of social capital (Berman 1997; Hall 1999; Levi 1998; Rothstein and Kumlin 2001; Stolle 2002; Tarrow 1996).

Rothstein and Kumlin's (2001) proposed mechanism by which good governance increases levels of generalised trust is based on game theory, specifically, the 'prisoner's dilemma'. They propose that, when people are faced with corruption within institutions and/or do not feel adequately protected, they will lose trust in institutions. This leads to that people will assume that others are resorting to bribery and other forms of corruption to get ahead and get preferential treatment. This assumption will lead them to question whether they can really trust others, and the individual's level of generalised trust will be eroded.

If Rothstein's theory linking institutional trust and generalised trust is correct, then there is another reason to attempt to stamp out corruption among those working in institutions in Bosnia Herzegovina.

Importantly, Rothstein and Kumlin's work (2001) suggests that different types of institutions differ in their relation to generalised trust. They distinguish between input/representational institutions, for example, presidencies, parliaments, and output/implementation institutions, for example, the police, the courts and the social services, including health and education.

They propose that people expect input/representational institutions where members are elected directly along party lines to act in a fairly partisan way; that was why, after all, they were elected in the first place. In addition, people have less direct contact with people working at these levels, and so less chance to develop relationships of trust based on personal contact and experience.

Thus, it is output/implementation public services such as the police and courts, health and education that must be experienced as trustworthy in order to build generalised trust.

In Bosnia Herzegovina, the lack of a professionalised civil service may negate this argument to some extent at present.

In addition, Knack and Keefer (1997) conclude that generalised trust is higher in nations with:

- institutions that effectively constrain the government and business leaders from acting arbitrarily, and
- laws that effectively protect property and contract rights.

2.4 The life experiences model

One would expect trust and trustworthiness to be positively correlated across societies: where fewer people prove to be trustworthy, fewer people will be trusting (Hardin 2002).

Causality likely runs the other way also as many people are "conditional" cooperators who act cooperatively when they have high expectations that others will reciprocate moral rules prescribing cooperation regardless of what others do. Thus, "not only do expectations affect honest behaviour, but over time, honest behaviour affects expectations" (Platteau 1994 p.760).

This study will include a variable constructed as a proxy of people's life experiences, to explore the link between experience and trust.

Unfortunately, we do not have a comparable measure of generalised trust from before the conflict to gauge the impact of such a monumental event on generalised trust.

2.5 Conclusions

Each model has its advocates and detractors. For the purpose of this study, we accept each model at its face value at the outset of the investigation.

Levels of generalised trust are most likely affected by several or all of the above models. Each will only explain a certain proportion of the generalised trust present in the country.

While a number of variables have been defined and can be investigated here, it is likely that others still need to be identified in order to more fully explain levels of generalised trust in Bosnia Herzegovina, particularly given the unusual post-socialist, post-conflict context.

This study enables us to establish relationships between various variables and generalised trust. It is, of course, much more difficult to establish the causality in these relationships. However, we use the above theories to interpret our findings and to propose how causality between variables and generalised trust might run.

Our stance is that working with coherent theory over time helps us to interpret findings, propose future action with greater confidence, and better understand society.

3 Who trusts and why?

In this chapter, we first present the basic measure of generalised trust in Bosnia and Herzegovina, and a breakdown of generalised trust on a regional basis.

The relationship between generalised trust and a number of variables found in the literature to be related to trust in other countries is investigated. These variables include age, educational status, individual financial status, regional ethnic homogeneity, regional income inequality, rural/urban setting and gender.

Each variable was initially investigated descriptively to discover if it is related to levels of generalised trust in the study data, and, if so, how. Significant variables were then subjected to multiple regressions. Multiple regressions give us an opportunity to consider a range of variables simultaneously so that we can see if a variable is correlated with the dependent variable (generalised trust), taking the effects of other variables into account. Appendix 1 provides a technical report of the regressions and estimations.

The aim of the analyses reported in this chapter was to build a basic model of who trusts on the basis of socio-demographic variables.

3.1 Generalised trust

The first question in our survey was about generalised trust. The question used has become a standard question in studies on generalised trust (WVS 1998).⁶ Survey respondents were asked to:

Circle the statement you agree with most?

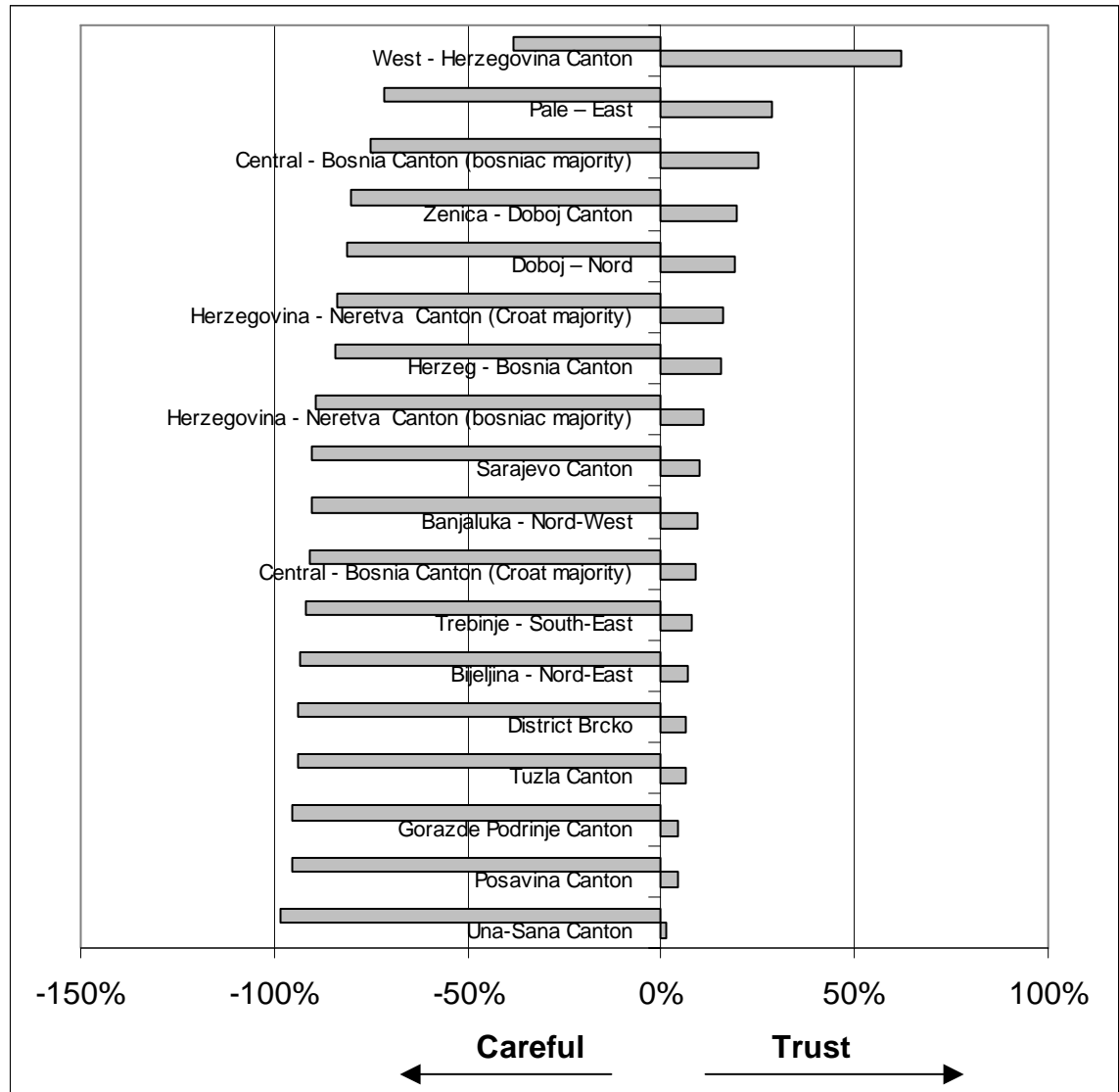
a) *“Most people can be trusted”*

b) *“You can’t be too careful when dealing with people”*

⁶ Even if this is a proxy for generalised trust, it turns out to be highly correlated with how people react in real life. Knack & Keefer (1997) tell about an experiment conducted by the Reader’s Digest where 20 wallets containing \$ 50 worth of cash and the address and telephone number of the ‘owner’ were dropped in each of twenty cities, selected from fourteen different western European countries. The number of wallets returned was highly correlated with the level of trust generated from this question.

Our data reveals that 14.5% of the respondents agree that most people can be trusted compared with 84.2% of respondents who agree that one can't be too careful when dealing with people.

Figure 1
Generalised trust by region in Bosnia Herzegovina, percent



Source: Calculations of data from the social trust survey December 2003.
Declined to answer and don't know answers have been excluded.

3.2 Regional levels of trust

The survey revealed major regional differences (Figure 1) in levels of generalised trust⁷. Focusing on the extremes, we see that 61.9% of

⁷ The study sampling strategy (Appendix 4) is based on 18 regions/cantons/parts of cantons. For the purpose of simplification, we will use the term 'regions' throughout.

³ Findings for West Herzegovina Canton are somewhat extreme with regard to the dependent variable generalised trust, but also with regard to other variables found to be significantly related to generalised trust. It would appear that this outlier result can be

respondents from West-Herzegovina Canton trust people in general³, whereas from Una-Sana Canton only 1.4% of respondents are general trusters.

3.3 Socio-demographic variables

Research in the field of social trust has, figurative speaking, exploded. The study literature review highlighted a number of variables that others have linked to generalised trust in other contexts. For a full explanation of how this study's variables were derived and analysed, see Appendix 1.

3.3.1 Age

The investigation of the relationship between age and generalised trust among our study population revealed unexpected results. The proportions of respondents who “trusted people in general” were:

- 15.8% of people aged 18-35
- 12.1% of respondents aged 36-50, and
- 16.7% of respondents aged 51+.

Thus we find a dip in levels of generalised trust in the mid-aged population (even when the actual distribution of the sample is taken into account Appendix 3).

The negative correlation of mid-age with levels of generalised trust persists when this variable is entered into the multiple regressions, so that this effect of mid-age is present even after other significant variables identified in this study have been taken into account.

3.3.2 Education

Results on the relationship between educational status and generalised trust again revealed surprises.

In a wide range of studies in other countries, higher education was positively related to higher levels of generalised trust.⁴ However, in Bosnia Herzegovina, higher educational status is negatively correlated with generalised trust. Individuals with secondary and tertiary education trust less than those with primary education.

Again, this effect persists when the variable is entered in the multiple regressions. Thus, additional explanations are needed in order to understand why people with higher education trust less.

explained by study findings and is not a result of sample error. In general, study findings were not overly sensitive to the removal of the West Herzegovina result.

3.3.3 Financial status

In individual level studies the respondent is normally asked about his/her subjective opinion on his/her (or the household's) financial situation. In there is WVS a question where the respondent is asked to value his/hers financial satisfaction. A good (perceived) financial situation has been found in a number of studies to be positively correlated with generalised trust.⁸

In cross-country studies the financial/economic situation is measured quite differently. In Knack and Keefer (1997)⁹, for example, GDP per capita is used, as one of many determinants of trust.¹⁰

Zak and Knack (2001) used two measures of financial status - wages and wealth - in their cross-country investigation into the relationship between investment and generalised trust. Higher wages correlated positively with higher generalised trust but greater wealth showed a negative correlation, leaving these authors unable to reach a conclusion regarding the effect of individual financial status on trust.

In this study, individual financial status¹¹ was estimated from answers to the following question:

Is your financial situation?

'on the edge of existence', 'considerably below average', 'somewhat below average', 'around average', 'somewhat' or 'considerably above' average, given that the average monthly income by household in Bosnia Herzegovina is 400KM at the present time?

Figure 2 shows the distribution of financial status.¹²

⁸ See for example Rothstein (2003) or Tyler (1998)

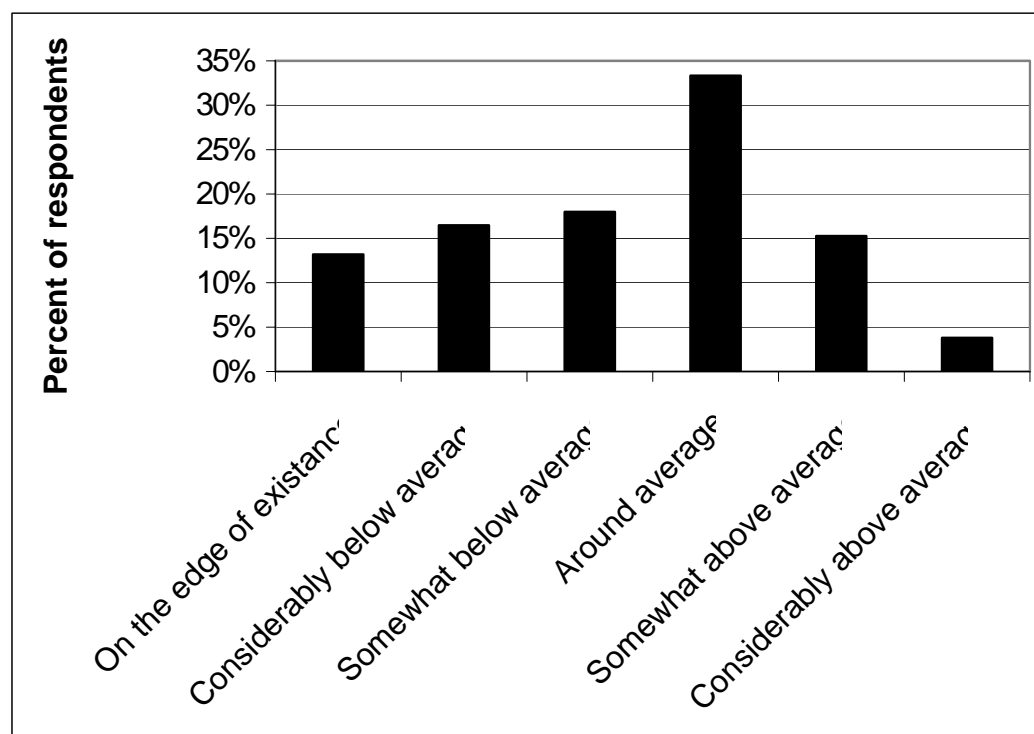
⁹ based on World Values Survey data from 1981 and 1990-1991.

¹⁰ It is important to point out that this is a different measurement than an individual's perceived financial situation.

¹¹ Accurate measures of individual income are notoriously difficult to attain in contexts where there is a substantial 'grey' economy. This question encourages respondents to take into account all earnings, benefits and other resources they can count on when answering. The stated average income gives the respondent a benchmark to consider when placing him- or herself in a category, and we make an assumption that most respondents make a realistic judgement when choosing a category.

¹² The variable is somewhat negatively skewed, but this is not unusual when it comes to income distribution.

Figure 2
Financial status



Source: Calculations of data from the social trust survey December 2003.
Declined to answer and don't know answers have been excluded.

The results from this survey show a positive correlation between an individual's financial status and his or her likelihood to be a general trustor. In other words, the higher an individual's financial status, the more likely he or she is to trust people in general.

This effect of financial status persisted when this variable was entered into the multiple regressions.

3.3.4 Ethnic homogeneity

According to Knack and Keefer (1997) countries with more ethnically homogeneous populations exhibit higher levels of generalised trust.

Zak and Knack (2001), however, found that ethnic homogeneity showed no linear relationship with trust. They found a positive correlation between increasing homogeneity and trust – up to a point. However, once the proportion of the largest ethnic group (Sullivan 1991) decreased below 0.66 of the total population, the relationship reversed. In other words, after this point, the more heterogeneous the population, the higher the levels of generalised trust.

A variable called ETHNIC was developed from the study data. Proportions of Bosniaks, Serbs, Croats and Others in each region were calculated from

the sample. Then the standard error for each region was calculated. This means that if a region has a large standard error it has more homogeneity (one group dominates).¹³ Table 1 shows standard error for each region and is sorted from high ethnic homogeneity to low.¹⁴

In line with the earlier work mentioned above, the study data revealed a positive, although far from linear, correlation between the level of ethnic homogeneity in a respondent's region and the likelihood of that person being a general trustor. Picture is, however, rather muddy. For example, Gorazde Canton and Trebinje South East Region are calculated as the most ethnically homogeneous regions based on this sample but have low levels of generalised trust. This highlights what we have emphasised before: There are a number of variables that work simultaneously. The concept of trust cannot be understood by watching only one variable.

Table 1
Ethnic homogeneity in the regions/cantons

<i>Region</i>	<i>ETHNIC</i>
Gorazde Podrinje Canton	0.4330
Trebinje – South-East	0.4254
West - Herzegovina Canton	0.4215
Herzegovina – Neretva Canton (Croat majority)	0.3785
Pale – East	0.3739
Doboj – Nord	0.3636
Zenica - Doboj Canton	0.3564
Bijeljina - Nord-East	0.3363
Sarajevo Canton	0.3291
Banja Luka - Nord-West	0.3239
Central - Bosnia Canton (bosniak majority)	0.3160
Una-Sana Canton	0.3079
Herzeg – Bosnia Canton	0.3068
Tuzla Canton	0.2939
Central - Bosnia Canton (Croat majority)	0.2493
Herzegovina – Neretva Canton (Bosniak majority)	0.2435
Posavina Canton	0.2317
District Brcko	0.2132

Source: Calculations of data from the social trust survey December 2003.
Declined to answer and don't know answers have been excluded.

¹³ The standard error measures the distance from the mean. If one group dominates, for example its proportion of the population is 0.9, and two other groups account for 0.05 of the population each, the standard error will turn out greater than if each of the three groups account for 0.33 of the population.

¹⁴ Other studies have calculated ethnic homogeneity in a different way. Zak and Knack 2000, for example, used the proportion of the largest ethnic group after Sullivan 1991. We recalculated our ETHNIC variable according to this method, ran it in the multiple regressions, and achieved the same results.

The variable presented in Table 1 was put into the multiple regressions. The correlation between an individual's likelihood of being a generalised truster and the level of ethnic homogeneity in the region in which he or she is living persists when the effects of other variables are taken into account.

Following Zak and Knack, this relationship was further scrutinised with respect to the break point hypothesis. Our measure of ethnic homogeneity was recalculated to reflect the proportion of the largest ethnic group (Sullivan 1991). According to the study data, our break point is where the proportion of the biggest group is 0.67. The positive correlation between increasing ethnic homogeneity and increasing trust becomes less pronounced. In other words, trust still increases with increasing homogeneity, but at a slower pace.

3.3.5 Income inequality

Both Keefer and Knack (1997) and Zak and Knack (2001) found positive correlation between high levels of income inequality and low levels of general trust in their cross-country studies. In both studies the Gini-coefficient was used.¹⁵

The 2000/2001 Gini-coefficient for BiH was 0.26 (UNDP 2003). This indicates that BiH does not exhibit extreme income inequalities in comparison to other countries.¹⁶

In this study we used survey data (declared income) to calculate a regional income inequality variable. From this information the mean and the standard error for each region was calculated. Thus, it was possible to investigate whether an individual's level of trust depended upon the level of income inequality in the region he or she was living. However, no significant correlation was found.

3.3.6 Rural and urban respondents

Putnam (2000) reports that residents of big cities show a somewhat greater distrust of the generalised other. However, in this study no significant difference was found between rural and urban dwellers in terms of their likelihood of trusting others in general.

¹⁵ <http://berclo.net/page01/01en-gini-coef.html> The Gini-coefficient is a number between zero and one that measures the degree of inequality in the distribution of income in a given society. The coefficient would register zero inequality (0.0 = minimum inequality) for a society in which each member received exactly the same income and it would register a coefficient of one (1.0 = maximum inequality) if one member got all the income and the rest got nothing. In practice, coefficient values range from around 0.2 for historically equalitarian countries like Bulgaria, Hungary, the Slovak and Czech republics and Poland to around 0.6 for places like Mexico, Guatemala, Honduras and Panama where powerful elites dominate the economy. In the USA in the last three decades, the Gini went from 0.35 in the 1970s to 0.40 in the 1990s. Most European countries and Canada rate around 0.30, Japan and some Asian countries get around 0.35, some reach 0.40 while most African and South American countries exceed 0.45.

¹⁶ However, this is the official income statistics. We believe that the "grey market" (legal activities but not paying taxes) is bigger in Bosnia Herzegovina than in other countries.

3.3.7 Gender

According to some researchers (van Lange et al. 2000) research has failed to prove any differences between men and women when it comes to trust. However, we wanted to control for gender in this study.

Our results imply that there is no significant difference between men and women in determining an individual's likelihood of being a general truster.

3.4 Conclusions

According to the study data, 14.7% of the population in Bosnia Herzegovina would agree that people in general can be trusted. In Chapters 6 and 7, this figure will be compared with those from other countries as well as over time for Bosnia Herzegovina.

A breakdown of this figure shows that levels of generalised trust vary greatly according to region/canton. Large disparities within countries are not unusual, with Putnam (2000; p.291) pointing out, for example, that trust varies between 16% and 60% across US states. However, the regional differences revealed in the data are stark, particularly within such a small country.

In this study, a complex picture emerges, such that variations in trust across regions/cantons cannot be explained by the dominance of one variable.

3.4.1 Age and education

Against expectations, individuals aged between 36 and 50 years and individuals with higher levels of education exhibit lower levels of trust. That the educational elite and the mid-aged population report relatively low levels of trust is worrying as both groups are important in terms of economic development.

... age

Other studies found that age was positively correlated with an individual's likelihood of being a generalised truster (Putnam 2000; Rothstein 2003).

Putnam traces a steady decline in social trust from the mid-60s onwards in the US, with older people having relatively higher levels of trust that persist over time. He suggests that findings show that the US level of social trust is being driven down by the relatively low trust levels of younger people. He calls this a 'generational effect' and traces the effect back to the formative experiences of each age group, suggesting that older people grew up in times when people were more trustworthy, leading to the formation of relatively positive attitudes towards trusting others.

In terms of formative experiences, one might expect today's young people in Bosnia Herzegovina to have experienced the worst case scenario: the

decline and ultimate breakdown of a political system and way of life, conflict, and years of slow and ineffective politico-economic transition. Yet their levels of trust are higher than those of mid-age respondents in this study.

It is possible, though not very likely, that the commonly-held, anecdotal opinion that ‘war communities’ bonded people together strongly is relevant here, and that young people’s experiences in such communities have led them to develop high levels of trust.

By contrast, people now aged 36-50 were young in relatively stable and prosperous times and, according to Putnam’s account, should have developed high levels of trust.

We suggest that other variables have impacted on our mid-age respondents and their underlying relationship to trust. For example:

- The experience of relative and ‘new’ poverty may be causing the effect, and such a variable might have explanatory value across regions/cantons;
- The mid-aged population in Bosnia Herzegovina may have shouldered a disproportionate burden in terms of the effects of the conflict.

We propose further research to define and investigate such variables.

... education

Again, we propose an effect based on relative expectations and the crushing of those expectations. It may be that the expectations of individuals with higher education have been relatively hard hit by the dismantling of the socialist state and the devastating effects of the conflict and transition on the economy.

People with higher education are no longer guaranteed a job for life, and many are finding that the qualifications they gained under the socialist education system are irrelevant in today’s Bosnia Herzegovina.

The disastrous state of the economy following the conflict means that many educated people do not have a job, and further that people with less or no qualifications have found their niche in this post-conflict society relatively easily.

Displacement as a result of the conflict may serve as an additional barrier leaving people with higher education unable to find a job that reflects their educational status.

Alternatively, one might speculate that individuals with higher education end up working in positions where the potential for fraud and bribery are high. Perhaps when such a person witnesses corruption (perhaps even takes bribes themselves), they are less likely to trust others.

3.4.2 Rural/urban setting

Likelihood of being a generalised truster did not depend whether an individual lived in a rural or urban setting. This is, perhaps, not surprising considering the relative small scale of urban centres in Bosnia Herzegovina, together with the demographic changes caused by conflict-related displacement and rural-urban shift.

3.4.3 Financial status and income inequality

According to expectation, individuals with higher financial status are more likely to exhibit higher levels of generalised trust.

Against expectations, it did not appear to be significant whether an individual lived in a region/canton with greater or lesser income inequality. The lack of significance with the income inequality data may be due to the fact that income inequality is relatively low in Bosnia Herzegovina at present. However, previous research highlights the need to guard against increasing income inequality.

The implication of the findings in terms of policy recommendations are that efforts to improve financial status across the country are indicated. Natural pieces in a “improving financial status”-policy are effective national tax collection and re-distributive economic policies. In terms of maintaining levels of trust, the emphasis of economic interventions should have been on maintaining employment rather than taking a hard line on establishing a market driven economy in the immediate years post conflict.

3.4.4 Ethnic homogeneity

According to expectation, individuals with higher financial status and living in regions that are ethnically more homogeneous are more likely to exhibit higher levels of generalised trust.

Psychologists would attribute this effect of ethnic homogeneity on trust, in part, to a genetic predisposition to cooperate with people who are similar to oneself. As this predisposition is unlikely to vary much across societies, this factor explains baseline cooperative behaviour. However, variations must be attributable to differences in the historical, social, economic and legal embeddedness of ethnic relations.

Issues around interethnic trust are explored further in Chapter 4 (who trusts whom) and Chapter 5 (generating trust).

3.4.5 The basic socio-demographic model

The findings presented in this chapter give us a basic socio-demographic model that can be used through out the study. The basic model takes into

account the respondent's age, educational level, perceived financial status and how ethnically homogeneous the region that person lives in is.¹⁷

The likelihood of an individual being a general truster **decreases** if:

- He or she is aged 36-50 years, or
- Has a secondary or tertiary education,

The likelihood of an individual being a general truster **increases** if:

- He or she has a higher perceived financial status, or
- Lives in an ethnically more homogeneous region/canton.

As we have shown in this chapter by using multiple regressions, a number of variables have to be taken into account when we start to explain “who trusts and why” and regional levels of trust, and they work simultaneously.

¹⁷ For a more technical presentation see Appendix 1.

4 Who trusts whom?

4.1 *Generalised trust vs. partial trust*

Generalised trust is about trusting people in general, all people across ethnical boundaries and national restraints. Partial trust is about turning towards “your own” and trusting your own community.¹⁸

The distinction between generalised trust and partial trust is clearly described by Rothstein.¹⁹ Rothstein uses the opening scene from Francis Ford Coppola’s picture “The Godfather” as an illustration of the problem. The poor undertaker Amerigo Bonasera is a man that has immigrated to the US from Sicily. He has always believed in the American system and American institutions. Now his daughter has been raped and assaulted by two American hooligans. The boys were prosecuted but weren’t given a punishment that Bonasera considers fair. Because of this he has now lost his trust in the system and turned to his “own”, i.e. his local mafia boss. One can also say that Bonasera has lost his belief in the universal legal system, i.e. the same treatment for everyone.

According to Rothstein this example shows that Bonasera and his family will turn from being generalised trusters to being partial trusters. They will not believe that they can trust people in general anymore and can now only trust their own community. They will distrust most of the institutions and believe that the institutions are constructed in a way that treats them unfairly.

Just as generalised trust has positive effects on democracy and economic prosperity, partial trust will have a negative effect. A person with high partial trust (but low generalised trust) will act in a way to favour his/her own community, distrust people from other communities and distrust (universal) institutions because he/she believes that they will disfavour his/her community.

¹⁸ However, here we have a problem when it comes to definition. Partial trust is about trusting people you know well. Generalised trust is about trusting strangers (and, of course also people you know well). In real life this is, of course, a gliding scale.

¹⁹ Rothstein (2003)

4.2 The data in this survey

With the following survey question, we aimed to look in more detail into whom the survey respondents trust:

“People have different opinions about different groups of people. Do you think you can trust: All, Most, Some, No people in the following groups”

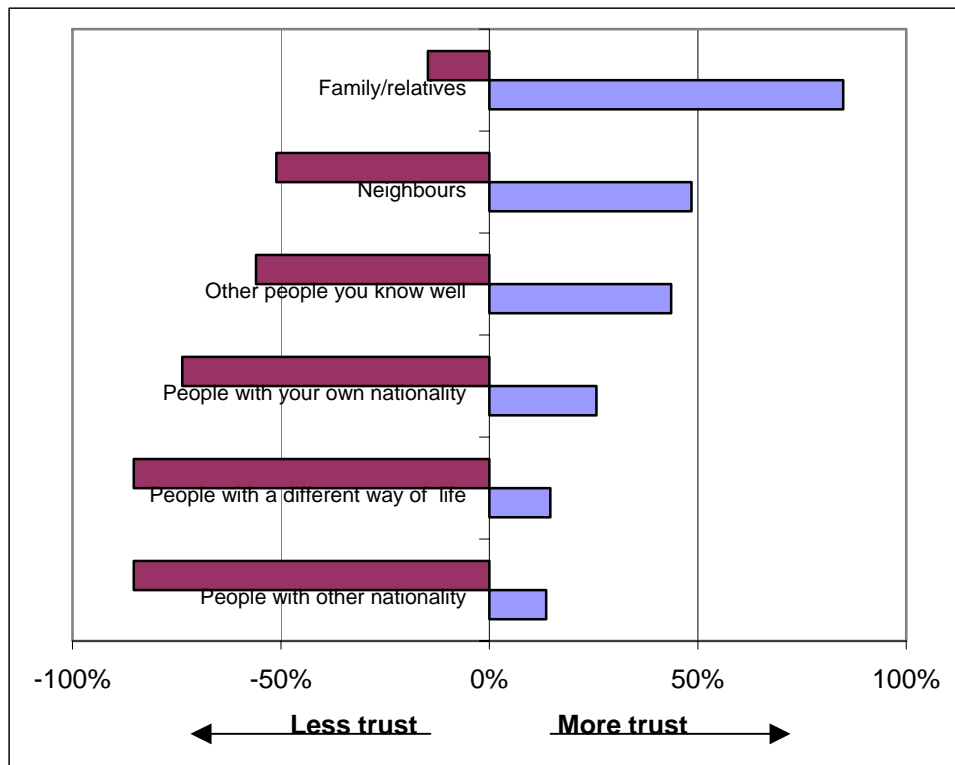
	<i>All</i>	<i>Most</i>	<i>Some</i>	<i>No</i>
<i>Family/relatives</i>				
<i>Neighbours</i>				
<i>Other people you know well</i>				
<i>People from your own nationality</i>				
<i>People from other nationalities</i>				
<i>People with a different way of life (e.g. professional career, different values, financial/social status, rural/urban etc.)</i>				

Figure 1 shows the result of the question. In the figure we have added the “All” and “Most”-responses (positive signs). On the negative side we show the sum of “No” + “Some”. This means that on the negative side we show how big proportion that answered that they trust some or no one in respectively group. On the positive side we have how big proportion of the respondents that answered that they trust all or most of respectively group.

As figure 1 shows, respondents reported very high levels of trust within families. Trust between neighbours and towards other well-known people, shows a reduction from the level of trust within the family. Trust in strangers (people with a different nationality or a different way of life) show again a reduction in trust in relation to people that the respondent knows well. The level of trust in strangers lies in line with the low levels of general trust.²⁰

²⁰ People with other nationality, All+Most: 13.6 %. People with a different way of life, All+Most: 14.6 %. The levels are not significantly different from the 14.7 % of generalised trusters.

Figure 1
Do you think you can trust the following groups?



Source: Calculations of data from the social trust survey December 2003.
 Declined to answer and don't know answers have been excluded.

4.3 Nationality and trust

In Table 2, we concentrate on how individuals trust people from own and other nationalities. We put the two questions in a cross-table to better describe the data and to detect a possible correlation.

The box all/all, for example, includes 30 respondents who indicated that they trusted all from their own nationality and all from other nationalities. The figure of 35.7% in the box below shows that of all the respondents (84 in total) who trusted all people of their own nationality, 35.7% of them trusted all people of the other nationality also.

We can see that the largest group among respondents were those who trust some people from their own nationality and some people from other nationalities.

Of the respondents who trust no one from other nationalities, about a quarter are people who trust no one from their own nationality either (a true bunch of nihilists). A further third trust some of their own nationality, and a reassuringly small group of only 36 individuals out of the total sample, trust all (8) or most (28) of their own nationality but no one from other nationalities.

The two variables, “trust people from your own nationality” and “trust people from other nationalities” show a high positive correlation, 0.52.

Table 2

**“Can you trust people from your own nationality?”
vs. “Can you trust people from other nationalities?”**

		<i>Trust other nationalities</i>				Total
		All	Most	Some	No	
<i>Trust own nationality</i>	All	30	20	26	8	84
		0.357	0.238	0.310	0.095	1.000
	Most	7	152	190	28	377
		0.019	0.403	0.504	0.074	1.000
	Some	3	25	950	230	1208
		0.002	0.021	0.786	0.190	1.000
No	1	6	12	90	109	
	0.009	0.055	0.110	0.826	1.000	
Total	41	203	1178	356	1778	
	0.023	0.114	0.663	0.200	1.000	

Source: Calculations of data from the social trust survey December 2003.
Declined to answer and don't know answers have been excluded.

Interestingly, the figures for those who trust people with a different way of life (not highly specified) mirror the figures for those who trust people of another ethnicity, perhaps indicating a broad lack of trust in the ‘unknown’.

4.3.1 Another way of measuring nationality based trust

We see above that there is a relatively small group of people who are more inclined to trust people of their own nationality than those of others.

In the survey, we came back to the issue of trust between nationalities and asked:

“This question is about a fictional example. Let’s suppose that you were going away for one month and you would need someone to look after your house. Among your neighbours there are many different nationalities.

How important is it to you that the person that would look after your house was of the same nationality as yourself? Would it be very important, important, not so important or unimportant?”

The answers are rated from 1 (very important) to 4 (unimportant). We also asked the respondents to react upon the following statement

*“When it comes to the three constituting people in BiH, do you agree or disagree with the following:
People from the other nationalities are not as trustworthy as people from my own nationality. Do you agree to a large extent, agree to a small extent, disagree or totally disagree?”*

Also these alternatives are rated from 1 (agree large) to 4 (totally disagree). Table 3 show the distribution of these variables.

Table 3
Distribution of respondents on partial trust

		HOUSE	
		Freq.	Percent
Very important	(1)	319	18.72
Important	(2)	475	27.88
Not so important	(3)	472	27.70
Unimportant	(4)	438	25.70
Total		1704	100.00
		OWN NAT	
		Freq.	Percent
Agree to a large extent	(1)	266	15.61
Agree to a small extent	(2)	588	34.51
Disagree	(3)	455	26.70
Totally disagree	(4)	395	23.18
Total		1704	100.00

Source: Calculations of data from the social trust survey December 2003.
Declined to answer and don't know answers have been excluded.

From these two variables we create a new variable that we call HARDLINE by simply adding them. This gives us a variable that can move from 2 to 8. A respondent that think HOUSE is “Very important” and has “Agreed to a large” extent on OWN_NAT gets a 2. The other extreme is someone who has “Unimportant” and “Totally disagree”. That respondent gets an 8. This means that a “nationalist hardliner” should get low points and someone more “liberal” should get higher points. Table 4 shows the distribution of this variable.

Table 4
Distribution of HARDLINE

	<i>HARDLINE</i>	
	Freq.	Percent
"Hardliner" ↑	2	114 6.7
	3	220 12.9
	4	346 20.3
	5	277 16.3
"Liberal" ↓	6	304 17.8
	7	201 11.8
	8	242 14.2
Total	1704	100.00

Source: Calculations of data from the social trust survey December 2003.
Declined to answer and don't know answers have been excluded.

Table 4 shows that the "extremist hardliner" is very rare in the sample (the 2's). The "extremist liberal" (the 8's) attract more than double the number of the respondents.

Putting the HARDLINE variable in the basic model multiple regression results in an unexpected negative correlation between the HARDLINE variable and generalised trust. Thus if people are more nationalistic they are more likely to be generalised trusters. This is, of course, a surprising result!

A contradicting result, in relation to the one on generalised trust, is that we have in our data found a correlation between the "hardline"-variable and the "spending time with other nationalities"-variable.²¹ This means that, as expected, the more hardline you become, the less time you spend with other nationalities. The interesting thing is that we have also found a correlation between the "hardline"-variable and the "spending time with people with a different way of life"-variable, even if it is smaller.²² According to us this indicates that the hardliner lives fairly "closed" life, not interacting with strangers or people that seems different and may with a general fear for the unknown.

We will follow these unexpected and contradicting results in the next chapter.

²¹ -0.3352

²² -0.1416

4.4 Conclusions

Results reported in this chapter have elements of good and bad news.

Starting with the good news, we see high levels of trust persisting within the traditional social fabric of families in Bosnia Herzegovina.

Additionally, we see that the numbers of people reporting outright distrust of other nationalities are relatively small.

The bad news is that levels of trust outside of family networks are low, in line with other results.

One very interesting result is that there is a positive correlation between trust in people from the respondent's own nationality and trust in people from other nationalities. This means that the more you trust people from your own nationality, the higher probability that you should trust people from other nationalities as well.

As we started of this chapter, we described Rothstein's hypothesis of an opposite relationship between partial trust and generalised trust. Our findings do not support this hypothesis, on the contrary. If we should simplify, one could say that if you are a truster, you trust both your own as well as strangers. If you are a distruster you trust no one. This group, the true nihilists, are the biggest group. This is worrying.

In an unexpected result, the study reveals that individuals exhibiting nationalistic tendencies are more likely to report that they trust people in general. This leads us to the question of who the respondents have in mind when they answer that they trust most people.

The question on generalised trust can certainly be criticised as somewhat ambiguous with respect to which "people" respondents have in mind when they answer. In the question above where we specify the "who", we found relatively high levels of trust within families and lower trust levels when it comes to strangers. The term "most people" is general enough, it seems, that responses should not simply reflect expectations about the behaviour of family and friends and those people well-known to the respondent, but also strangers.

However, as we will explore in the next chapter, the standard question needs modification for future surveys.

5 Generating trust

In chapter 3 we examined a number of socio-demographic variables. The method used was multiple regression. The result give us a good picture of who trusts, and we use other researchers hypothesis to understand why a specific variable effects trust.

In this chapter we will take one step further to understand the nature of trust. We will estimate the variables from the different theories we presented in chapter 2.

In this chapter, like in chapter 3, we will describe the data both descriptive and run it in multiple regressions. Like in chapter 3 the results from the multiple regressions will be verbally described. The basic model from chapter three is used as a starting point. This means that for each model that is entered into the multiple regression, age, education, financial status and ethnic homogeneity is considered simultaneously. In appendix 1 the results are described in a more technical manner.

5.1 *The associational model*

In chapter 2 we described the theory behind the whole social capital concept. As explained earlier some researchers (Robert Putnam, among others) focus on the role of associations and association affiliation. To simplify; Putnam explains generalised trust and differences in generalised trust with (and differences in) association affiliation. According to Putnam this derives from that people meet different kinds of people in the associations (people they shouldn't have met otherwise) and thereby learn to trust people.²³

In the questionnaire for the social trust survey we put the question:

²³ Putnam (1993)

“Are you a member (active or inactive) of any associations, teams or clubs of the following.”

Sport clubs or official supporter clubs
Political party
Professional/business association
Trade union
Religious community/organisation
Charity organisation
Women’s association
Pensioners Assoc
Youth Club/disability
Environmental/ecological organisation
Cultural groups (e.g. music group or theatre group)
Association of entrepreneurs
Citizens' association
Any other club or group that meets regularly

5.1.1 Descriptive overview

The membership numbers of each association are too small to be analysed separately. We have instead aggregated the association memberships into one active and one inactive group. This means that if the respondent is an active or an inactive member in *any* association, he or she will belong to the ACTIVE respectively the INACTIVE variable. Table 5 shows the distribution of active and inactive memberships. The table shows that 6 out of 10 respondents are neither an active nor an inactive member in any kind of association.

Table 5
Active and inactive memberships in associations

	<i>Active</i>	<i>Inactive</i>	<i>Not member</i>	<i>Total</i> ²⁴
Number	471	403	1037	1772
Percent	26.5%	22.7%	58.5%	107.7%

Source: Calculations of data from the Social trust survey December 2003

In table 6 we examine multiple memberships. We can draw some conclusions for the BiH population from the results. Apparently most people, who are members in any association, are single members. When it

²⁴ A person could be an active member in one association and an inactive in another. Because of these multiple memberships, the active and inactive memberships added to the persons that are not members in any association, doesn’t add up to the total.

comes to memberships in more than four associations, these rates are not significantly different from zero.²⁵

Table 6
Multiple memberships

<i>Multiple memberships</i>		
No. of associations	Freq.	Percent
0	1037	58.5%
1	423	23.9%
2	185	10.4%
3	61	3.4%
4	33	1.9%
More than 5	33	1.9%
Total	1772	100,0%

Source: Calculations of data from the Social trust survey December 2003

5.1.2 Multiple regressions and estimations

The full regression model is shown in appendix 1. We will here make a summary of the results.

The result of the estimations tells us that being an active member in any kind of association is positively correlated with generalised trust. A person who is an inactive member, on the other hand, has no higher (or lower) probability of being a person that trusts people in general, compared to a person not being a member. Inactive membership is not correlated with generalised trust, but an active membership is.

These findings suggests a situation where being active in an association might increase levels of generalised trust, perhaps through experiencing cooperation or perhaps through experiencing “bridging”. However, further research will be necessary to claim this hypothesis. With present findings we cannot rule out the possibility that more trusting people make more active members.

5.2 The contact model

According to contact theory contact between people should lead to less prejudice and more understanding.²⁶ We wanted to find out whether contact is related to more trust. In the questionnaire we put the following question:

²⁵ This means that we cannot draw any conclusions for the Bosnian population from this small number of respondents that answered that they are members in more than 4 associations.

²⁶ In chapter 2 the essence of contact theory is described.

How often do you spend time with...

- *Family/relatives*
- *Neighbours*
- *Other people you know well*
- *People with your own nationality*
- *People with other nationalities*
- *People with a different way of life(e.g. professional career, different values, financial/social status, rural/urban etc.)*

The given alternatives to answer was:²⁷

- *Almost every day*
- *A few times a week*
- *A few times each month*
- *Seldom or never*

We also asked a related question about how much the respondent thinks he or she can trust ...

- *Family/relatives*
- *Neighbours*
- *Other people you know well*
- *People with your own nationality*
- *People with other nationalities*
- *People with a different way of life(e.g. professional career, different values, financial/social status, rural/urban etc.)*

5.2.1 Descriptive overview

The data shows that the respondents in general have very little contact with “people that are different”. 37 % of the respondents seldom or never meets people from other nationalities. 31 % of the respondents have no or little contact with people with a different way of life. When it comes to the respondent’s own nationality, the proportion of respondents who seldom or never meet people from the own nationality, is 8 %.

In Table 7 and 8 we put the contact answers together with the trust answers. What we wanted to see is if there is any visible correlation between how much time you spend with people and how much you trust them.

²⁷ There was also a possibility to answer “Don’t know”, but this option was not read to the respondent to minimize this easy way out. In the data presented we have dropped the “Don’t know”-answers, because they cannot be used in the regressions. We want to show consistent data, therefore we chose also drop the “don’t know”-answers in the descriptive part. However, the differences are small.

Table 7
“People with your own nationality”

<i>Do you think you can trust?</i>	<i>How often do you spend time with...</i>				
	Almost every day	A few times each week	A few times each month	Seldom or never	Total
All	55%	31%	10%	5%	100%
Most	36%	39%	21%	5%	100%
Some	30%	27%	35%	8%	100%
No	16%	19%	32%	33%	100%

Source: Calculations of data from the Social trust survey December 2003
 Declined to answer and don't know answers have been excluded.

Table 8
“People with other nationalities”

<i>Do you think you can trust?</i>	<i>How often do you spend time with...</i>				
	Almost every day	A few times each week	A few times each month	Seldom or never	Total
All	37%	27%	15%	22%	100%
Most	10%	41%	27%	21%	100%
Some	11%	21%	37%	31%	100%
No	3%	6%	16%	75%	100%

Source: Calculations of data from the Social trust survey December 2003
 Declined to answer and don't know answers have been excluded.

The tables above show a correlation between trust and time spent with a group. This is in specific obvious in table 8. People who trust no one with other nationalities do not spend time with people with a different nationality either. Of the 352 respondents that trust no one, 263 respondents (75 %) never or seldom spend time with people from other nationalities.

We ran the data in two regressions. We ran one regression for “People from own nationality” and one regression for “People from other nationality”. “Do you think you can trust ...” was the dependent variable and “How often do you spend time with...?” was the only explanatory variable in respectively regression. The parameter turned out to be significantly different from zero and positively correlated with the dependent trust-variable. This was the expected sign and means that the more time people spend with others (i.e. a specific group) the more they trust them.

Even if this shows a correlation between contact and trust, it doesn't say anything about the causality. It is easy to picture to oneself that you like to socialize with people you trust. You meet them because you trust them. It

isn't obvious that you trust them because you meet them. But, on the other hand, it has to start somewhere, doesn't it?

5.2.2 Multiple regressions on generalised trust

So, now is the question if contact with people from other nationalities and people with a different way of life increases generalised trust. We have designed a variable by adding "How often do you spend time with people with other nationalities" with "How often do you spend time with people with a different way of life". For each of these questions it was possible to answer "Almost every day", "A few times each week", "A few times each month" or "Seldom or never". Respectively answer was coded with a 1 (Almost every day) up to a 4 (Seldom or never).

When the two questions are added ("people with other nationalities" + "people with a different way of life") we get a scale from 2 till 8. Someone who answered "Almost every day" on both questions gets a 2, and someone who answered "Seldom or never" on both questions gets a 8. Table 5 shows the distribution of this new contact variable.

Table 9
Distribution of the contact variable
"people with other nationalities + people
with a different way of life"

	<i>Freq.</i>	<i>Percent</i>
2	74	4.2%
3	53	3.0%
4	242	13.7%
5	206	11.7%
6	490	27.8%
7	342	19.4%
8	354	20.1%
Total	1761	100.0%

Source: Calculations of data from the Social trust survey December 2003
Declined to answer and don't know answers have been excluded.

The table show that there are a lot of people that have very little contact with people from other nationalities or people from other communities or both. Over 20 % of the respondents have no contact with people with other nationalities **and** people with a different way of life.

From the contact theory, we would expect the above-described contact variable to be negatively correlated with generalised trust. This means that the less you meet people that are not like yourself, the less you trust people in general.

The estimations are shown in appendix 1. Surprisingly, the result is that the contact variable is not significant different from zero. This means that we cannot say that people who meet people who are different (from them)

trusts most people more. This might seem like a contradiction in relation to the data we have showed above. The data tells us that people who don't meet people from other nationalities don't trust them. We will discuss this further in the conclusions.

5.2.3 Who doesn't meet people?

So, if we look at our data, the question is; who interacts with people that are different from them? And who doesn't?

We ran two regressions to find out.²⁸ In the first regression we used "Spending time with people from other nationalities" as dependent variable. We used rural/urban, age, gender, education and financial status to explain differences in the spending time variable.

The results from spending time with people from other nationalities show that people in rural areas spend less time with people from other nationalities, than people in urban areas. The results also show that people with lower education more seldom meets people from other nationalities. All other variables are not significant. This means that gender, age and financial status do not matter when it comes to spending time with people from other nationalities.

The results when it comes to spending time with people with a different way of life are a bit different. The rural variable turns out to be insignificant. Instead it shows that the middle-aged seems to meet people with a different way of life more seldom than the young. The old, however, is not significantly different from the young. Neither does gender matter, but both education and financial satisfaction is correlated with the spending time variable, indicating that the better of you are financially and the more well-educated you are, the more time you spend with people with a different way of life.

5.3 The Institutional Model

In chapter 2 we presented the institutional model. The model considers institutional trust to be the main explanation of generalised trust. The main thought in the model is that if someone trusts the institutions this person believes that the institutions act in a way that people cannot cheat or trick others. If you believe that the institutions will take care of people who act untrustworthy (for example in a business relation) you will be free to act in a trusting way, and do not have to risk to be tricked. You can "afford" to be trusting.

In this section we will use our basic model and increase it with institutional trust variables.

In the questionnaire we put the following question.

²⁸ See appendix 1

This question is about your trust in the authorities. Which of the following institutions do you trust, trust to some extent, distrust to some extent, or distrust. (Do not read Don't know).

	<i>Trust</i>	<i>Trust to some extent</i>	<i>Distrust to some extent</i>	<i>Distrust</i>	<i>DK</i>	<i>NA/DWA</i>
<i>Police</i>						
Army						
<i>Central Government</i>						
<i>Entity Government</i>						
<i>Municipality government</i>						
<i>Courts</i>						
<i>SFOR</i>						
<i>The school system</i>						
<i>Health care</i>						

Another question was:

DO YOU APPROVE OR DISSAPROVE OF OHR'S WORK?

The answering alternative was "Yes", "No", "Not applicable", "Doesn't approve nor disapprove" and "DK/NA".

5.3.1 Descriptive overview

Table 10 shows the distribution of the institutional trust.

Table 10
Distribution of institutional trust

	<i>Trust</i>	<i>Trust some</i>	<i>Distrust some</i>	<i>Distrust</i>	<i>Don't know/ No answer</i>	<i>Total</i>
<i>Police</i>	38.0%	42.3%	10.2%	8.7%	0.8%	100.0%
<i>Army</i>	38.8%	42.8%	10.1%	6.8%	1.5%	100.0%
<i>Central Government</i>	13.6%	36.1%	28.2%	20.6%	1.5%	100.0%
<i>Entity Government</i>	14.8%	38.0%	26.5%	19.4%	1.2%	100.0%
<i>Municipality government</i>	16.4%	40.9%	22.9%	19.0%	0.9%	100.0%
<i>Courts</i>	21.1%	44.2%	19.4%	14.2%	1.1%	100.0%
<i>SFOR</i>	19.4%	36.3%	20.6%	21.8%	1.9%	100.0%
<i>The school system</i>	29.8%	47.7%	13.8%	7.6%	1.1%	100.0%
<i>Health care</i>	29.0%	46.1%	15.3%	8.6%	1.0%	100.0%

Source: Calculations of data from the Social trust survey December 2003

The table shows that institutional trust is very high. Especially the police and the army get high numbers. The trust in the government (on different levels) is lower.

Table 11 show the distribution of approval of OHR's work.

Table 11
Do you approve or disapprove of OHR's work?

Yes	No	Not applicable	Neither nor	DK/NA	Total
48.5%	41.3%	0.4%	7.1%	2.6%	100.0%

Source: Calculations of data from the Social trust survey December 2003

It is, of course, difficult to compare the OHR question with the institutional trust question. However, we will later use this data as a proxy for trust in the OHR on an individual level.

5.3.2 Multiple regressions and estimations

For the multiple regressions we created five variables.

1. Policy or Army
2. Courts
3. Central Government or Entity Government or Municipality Government, (here called; Government)
4. The school system or Health Care (here called; welfare system)
5. SFOR or “Yes” on the OHR-question (here called; international)

The estimations show that people who trust the governments on different levels and people who trust the welfare systems have a higher probability of also trusting people in general.

The variable of the international institutions is negatively correlated with generalised trust. This might be surprising, but one can argue that a person that trusts the international organisations believes that the international organisations should be in place because people in general (in BiH) cannot be trusted. This could also be connected with a higher grade of anxiety of what will happen when the international organisations will leave BiH.

Trust in the police and army and trust in the courts is not significantly different from zero. This means that we cannot say that they have any effect on the probability of becoming a person that trusts people in general.

Concerning the police and the army there might be a rational explanation. If you don't trust people in general, then you need a strong police force. So, it might be rational that a person that trusts the police doesn't trust people in general.²⁹

However, the results do not fully support Rothstein's hypothesis concerning institutional trust. According to Rothstein, people understand and accept that politicians favour their own groups, but people do not accept the same thing in the civil service or within the legal authorities.

²⁹ However, in this estimation is not significantly different from zero. This means that we cannot say whether people trust people more or less if they trust the legal system.

This also makes the result concerning courts difficult to explain. According to the theory, trust in the courts is essential for generalised trust. In this data we do not find any correlation (insignificant). One might speculate in that it might have to do with a lack of transparency and a lack of personal experience of courts. However, it is obvious that more research has to be put into this area.

5.4 The life experiences model

Researchers³⁰ has emphasised that social trust depends upon earlier experiences and the perception of the reality. According to Kenneth Newton, for example, social trust has its origin in people's acquired information that in its turn is based upon personal experiences.

With a starting point in Newton's thoughts we create a variable that we will call TRUSTER. We put the following statements for the respondents to react upon:

We would like to make a few statements and would like you to say whether you in general agree or disagree:

- (i) *"Most people tell a lie when they can benefit by doing so."*
- (ii) *"If you drop your purse around here someone will see it and return it to you."*
- (iii) *"People will take advantage of you when you work with them."*
- (iv) *"If you have a problem, there is usually someone who can help you."*
- (v) *"People are always interested only in their own welfare."*

The alternatives were "Agree to a large extent", "Agree to a small extent", "Disagree to a small extent" and "Disagree to a large extent".³¹ In the analysis we have summed the "Agrees" (Agree to a large extent + Agree to a small extent) respectively the "Disagrees" (Disagree to a small extent + Disagree to a large extent). We have then turned some questions around and created a Distrust-group respectively a Trust-group. This gives us the following:

- (i) if "Agree", then Distrust (=0), if "Disagree" then Trust (=1)
- (ii) if "Agree", then Trust (=1), if "Disagree" then Distrust (=0)
- (iii) if "Agree", then Distrust (=0), if "Disagree" then Trust (=1)
- (iv) if "Agree", then Trust (=1), if "Disagree" then Distrust (=0)
- (v) if "Agree", then Distrust (=0), if "Disagree" then Trust (=1)

³⁰ See among others Newton (2002) and Rothstein (2003)

³¹ Of course, some answered "Don't know" or refused to answer (No answer, NA). However, this option was not given by the interviewer in purpose to delimit the option of not taking up a stand.

This gives us a variable, TRUSTER, that can take a value from 0 to 5, where 0 is a person that is a “distruster” on all five statements and 5 is a person that trusts on all 5 statements.

We see the TRUSTER variable as an approximation for personal experiences. We assume, for example, that a person that has experiences from work that others have taken advantage of him or her will agree with the statement “*People will take advantage of you when you work with them*”. Otherwise this person will disagree. If a person has had his or her purse returned, this person (presumably) will agree with statement *ii*.³²

5.4.1 Descriptive overview

According to the Newton hypothesis, the correlation between the truster variable and the generalised trust variable could be expected to be high. The distribution of the two variables is shown in table 12.

Table 12
Generalised trust and the variable TRUSTER.

		<i>Generalised trust</i>		
		Careful	Trust	Total
Distruster ↑ ↓ Truster	0	173 93.0 %	13 7.0 %	186 100.0 %
	1	564 90.7 %	58 9.3 %	622 100.0 %
	2	546 85.6 %	92 14.4 %	638 100.0 %
	3	140 76.9 %	42 23.1 %	182 100.0 %
	4	46 57.5 %	34 42.5 %	80 100.0 %
	5	29 63.0 %	17 37.0 %	46 100.0 %
Total		1498 85.4 %	256 14.6 %	1754 100.0 %

Source: Calculations of data from the Social trust survey December 2003
Declined to answer and don't know answers have been excluded.

Table 12 show that there is a correlation between the two variables, but it is far from linear. One could expect that a person that is a truster on all five statements, answers that people in general can be trusted on the generalised trust question. Even if people have good experiences from their own life,

³² This is, of course, a simplification, but like in all modelling, we need to do assumptions to be able to do generalisations. We can notice that that a very big proportion of the respondents (79 %) “Agree to a large extent” or “Agree to a small extent” in that people will take advantage of you when you work with them.

they do not trust people in general. On the contrary people that only were trusters on one statement answered that people in general can be trusted.

5.4.2 Multiple regressions and estimations

Even if the TRUSTER variable seems to be correlated with generalised trust, we would like to see what happens when other variables are considered simultaneously. To run the variable in a multiple regression gives us this possibility.

The results from appendix 1 shows that there is a positive correlation (expected sign) between the TRUSTER variable and generalised trust. This means that the higher score the TRUSTER variable gets, the higher the probability of trusting people in general is.

As we interpret the results it shows rationality. We mean that the TRUSTER variable measures experiences and a subjective, perceived view of people's trustworthiness in specific situations. We believe that people, who have experienced trustworthiness in specific situations, tend to trust people in general.

5.5 Conclusions

Why do people trust people in general? We can see in this data that active membership in an association as well as trust in the government and in the welfare systems is significantly different from zero and have expected signs.

As we pointed out earlier in this chapter, we have some results that are both surprising and confusing. Institutional trust in the courts is not significant, but trust in the Government is. This is from the institutional model point of view difficult to understand. More research is needed here.

We found a strong correlation between spending time with people from other nationalities and trusting people from other nationalities. The same goes for people with a different way of life. However, we cannot find any correlation between generalised trust and spending time with people from other nationalities or people with a different way of life. How come?

Here the work of Gabriel Badescu offers some guidance. Badescu highlights the problem of interpreting the standard question on generalised trust in the post-communist countries. He argues that the traditional question on generalised trust ("Most people can be trusted"; we have also used this question in this survey) is interpreted differently in western and eastern countries. As he says, the transition countries have a larger proportion of people living in rural areas, which tend to be small (per definition) and characterised by "extended kinship relations, and low interaction beyond their borders".³³

³³ Badescu (2003)

As Badescu points out

“ “Most people” could have a different meaning for someone whose contacts are almost exclusively with relatives and people who he/she has known his/hers entire life, than for a person who has moved several times, had travelled extensively, and has lived in places that has undergone rapid changes in its social structure as a result of migration and immigration.”

Badescu shows in Romanian data that the “Most people can be trusted”-question is stronger correlated partial trust (trust in people of similar ethnicity, family and neighbours) than trust in strangers (people of other ethnicity other religion).

The Badescu hypothesis offers a key, not only to interpret the difficult findings in the contact theory, but also to the confusing findings in the hardliner-variable in the previous chapter.

6 Comparisons between countries

This section is based on data from the World Value Survey's (WVS) third wave 1995-1997. The WVS' third wave was conducted in April 1998 in Bosnia-Herzegovina.

The WVS is a worldwide investigation of socio-cultural and political change. It is conducted by a network of social scientist at leading universities all around world. A total of four "waves" have been carried out since 1981 allowing accurate comparative analysis.

An international network of social scientists carries out WVS, with local funding for each survey. In exchange for providing the data from interviews with a representative national sample of at least 1,000 people in their own society, each participating group gets immediate access to the data from all of the other participating societies. Thus, they are able to compare the basic values and beliefs of the people of their own society with those of more than 60 other societies. In addition, they are invited to international meetings at which they can compare findings and interpretations with other members of the WVS network.

The WVS data have become well known in recent years, and have been utilized in hundreds of publications in more than a dozen languages.³⁴ According to WVS, these data have also been used extensively in graduate seminars and for instructional purposes more broadly.

6.1 Generalised trust

In this section we are going to view some of the variables we are using later. In the World Value Survey (WVS) the following question is asked:

"Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people?"

In table 13 the result from 44 countries is shown. Table 13 is sorted from low trust to high trust. As the table shows, BiH is among the countries that have higher trust.

³⁴ See www.worldvaluesurvey.org

Table 13
Percentage of people in respectively country who think they can trust others, or have to be careful.

	Trusted	Careful	Don't know	TOTAL
Brazil	2.8	96.5	0.7	100.0
Peru	4.9	92.2	2.9	100.0
Philippines	5.5	93.8	0.8	100.0
Turkey	5.5	94.5	0.0	100.0
Puerto Rico	6.0	94.0	0.0	100.0
Macedonia	7.5	84.3	8.1	100.0
Venezuela	13.7	86.3	0.0	100.0
Slovenia	15.5	84.5	0.0	100.0
Poland	16.9	77.5	5.6	100.0
Argentina	17.5	82.5	0.0	100.0
Azerbaijan	19.4	75.2	5.3	100.0
Estonia	21.1	76.8	2.2	100.0
Georgia	21.4	70.2	8.4	100.0
Chile	21.4	76.2	2.4	100.0
Lithuania	21.6	75.8	2.6	100.0
Uruguay	21.7	76.2	2.2	100.0
Moldova	21.8	76.5	1.6	100.0
Belarus	23.0	72.5	4.5	100.0
Russia	23.4	73.7	2.9	100.0
Armenia	23.5	71.7	4.8	100.0
Croatia	23.6	76.4	0.0	100.0
Bulgaria	23.7	59.1	17.2	100.0
Latvia	23.9	72.8	3.3	100.0
E Germany	24.3	73.2	2.5	100.0
Dominic Rep	25.2	70.0	4.8	100.0
Mexico	26.4	67.6	6.0	100.0
Bosnia Hercegovina	26.9	68.2	4.9	100.0
Serbia	28.4	67.0	4.5	100.0
Spain	28.7	67.7	3.6	100.0
Ukraine	28.8	64.1	7.1	100.0
Britain	29.1	69.1	1.8	100.0
S Korea	30.3	69.6	0.2	100.0
Montenegro	30.4	63.8	5.8	100.0
India	33.0	51.3	15.7	100.0
USA	35.6	64.4	0.0	100.0
Switzerland	37.8	54.5	7.6	100.0
W Germany	39.9	55.7	4.4	100.0
Australia	39.9	60.1	0.0	100.0
Taiwan	41.8	58.2	0.0	100.0
Japan	46.0	54.0	0.0	100.0
Finland	46.9	51.6	1.5	100.0
China	52.7	47.3	0.0	100.0
Sweden	56.6	38.3	5.2	100.0
Norway	64.8	34.4	0.8	100.0
TOTAL	25.2	71.7	3.1	100.0

It is obvious that this survey shows higher trust than the BiH Social Trust Survey 2003 did. We will explore this closer in chapter 5. However, we can state that if BiH has decreased to the 14.5 % that the BiH Social Trust Survey shows, it should put BiH between Slovenia and Venezuela, but before Macedonia.

6.2 *The institutional model*

In the chapter 2 and chapter 5 we explored what we choose to call “the institutional model”. According to Rothstein (2003) (among others) generalised trust depends on the institutional trust. People will not trust each other if they have bad experience with corrupt institutions. This will create a social trap where people cannot trust each other because there is no institution that will protect and impose contracts and agreements.

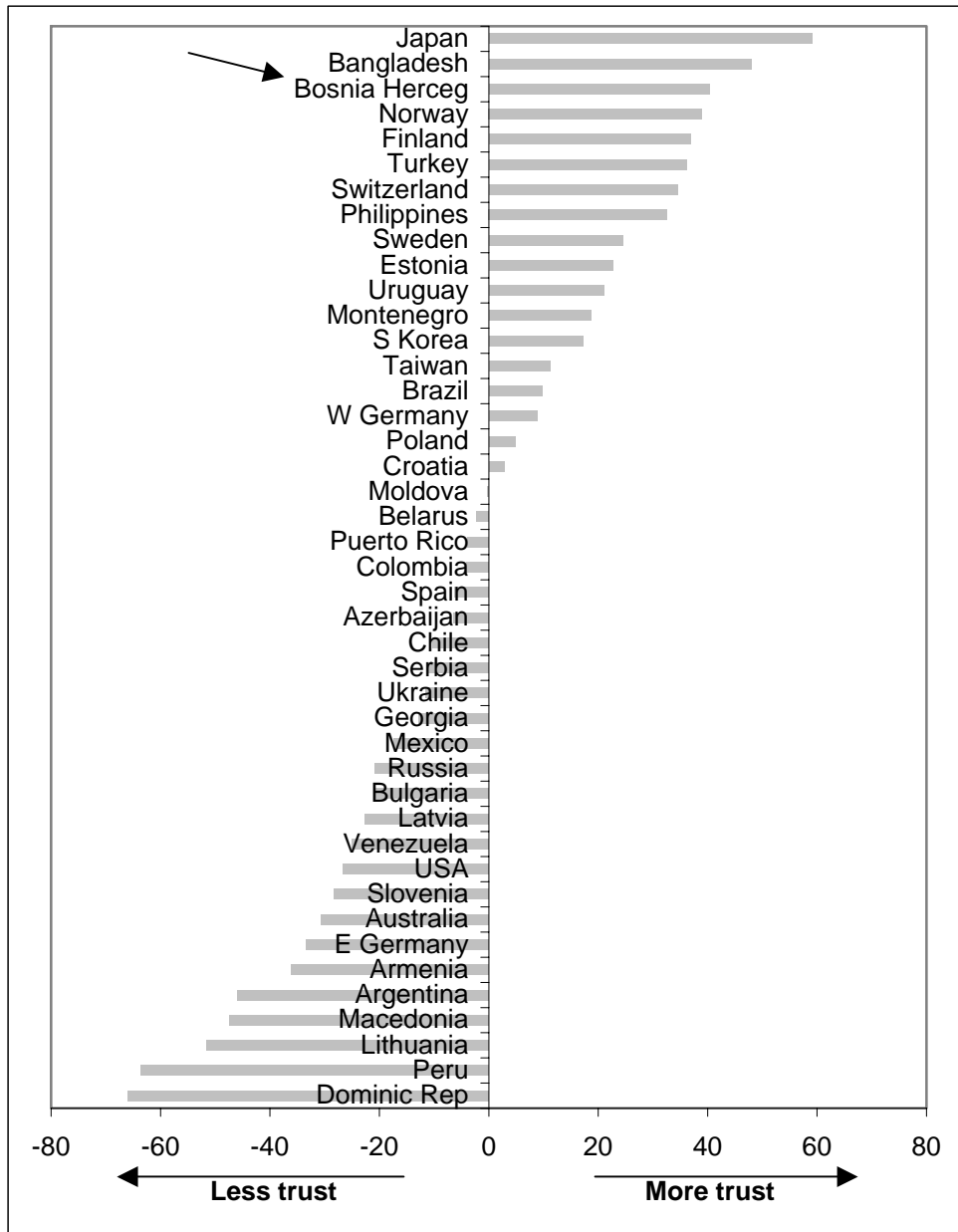
Figure 1a-1c show citizen’s confidence in the legal system, in the civil service and in the government³⁵ in various countries. The respondents was asked the following question:

“I am going to name a number of organizations. For each one, could you tell me how much confidence you have in them: is it a great deal of confidence, quite a lot of confidence, not very much confidence or none at all?”

We added “A great deal of confidence” and “Quite a lot of confidence” and called this variable Trust (measured as a percentage of all respondents in that country). On the other side we added “Not very much confidence” and “None at all” and called this Distrust. The difference Trust minus Distrust became out net value for trust, Net Trust.

³⁵ We don’t know how this question has interpreted by the respondent in BiH. In the variable list it says “national government” and in the codebook it says “The government in your capital” which might be interpreted as entity government.

Figure 1a.
Citizen's confidence in the **legal system** in different countries
Net trust.



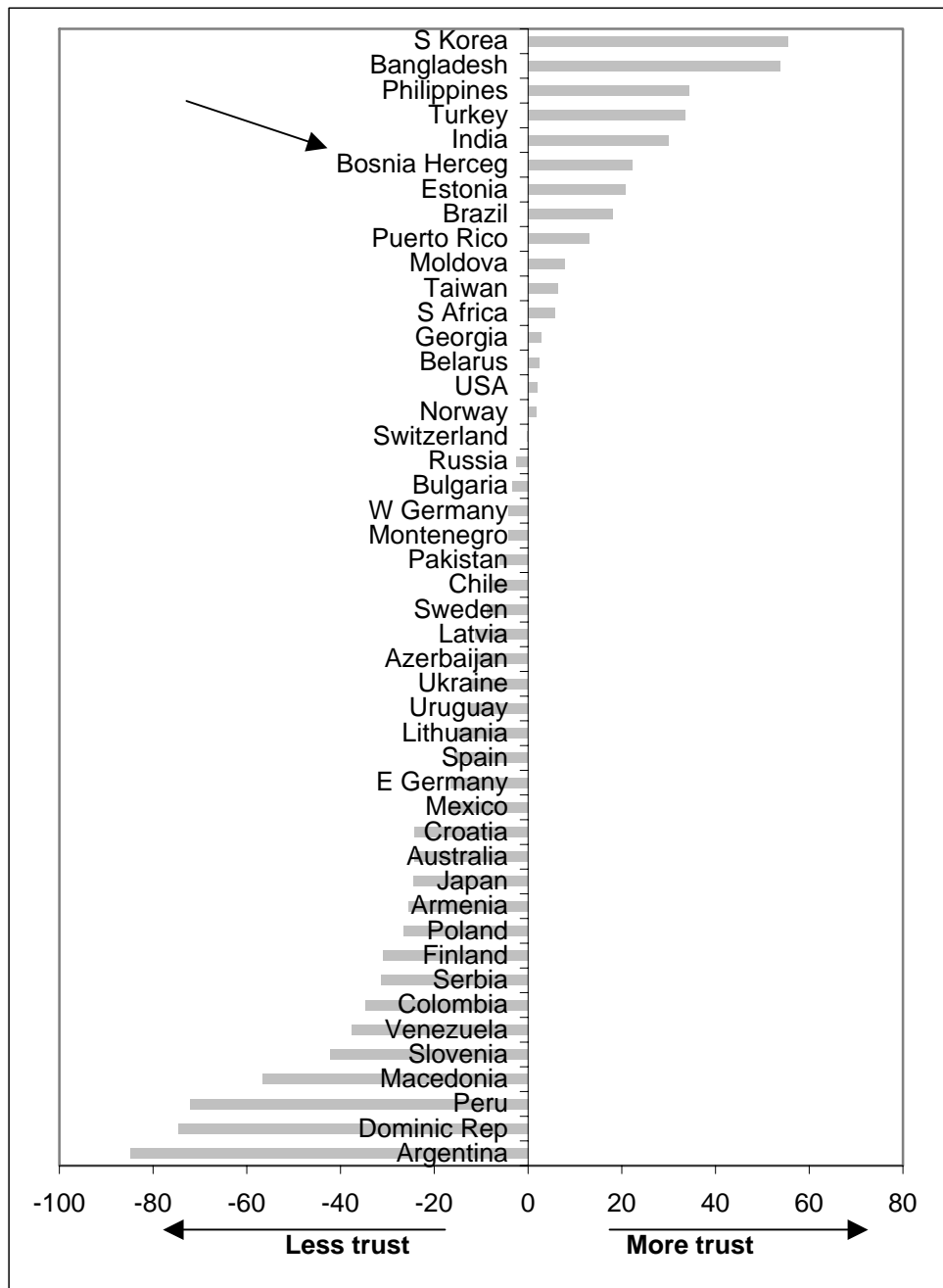
Source: World Value Survey 1995-1997

Figure 1a shows that BiH was on third place 1998 when it came to trust in the legal system. This might be surprising, but also in the Social trust survey 2003³⁶ as well as in the UNDP Early Warning Reports³⁷, the BiH legal system gets high marks when it comes to trust and confidence.

³⁶ See chapter 3

³⁷ UNDP (2003)

Figure 1b
Citizen's confidence in the civil service in different countries,
Net trust.

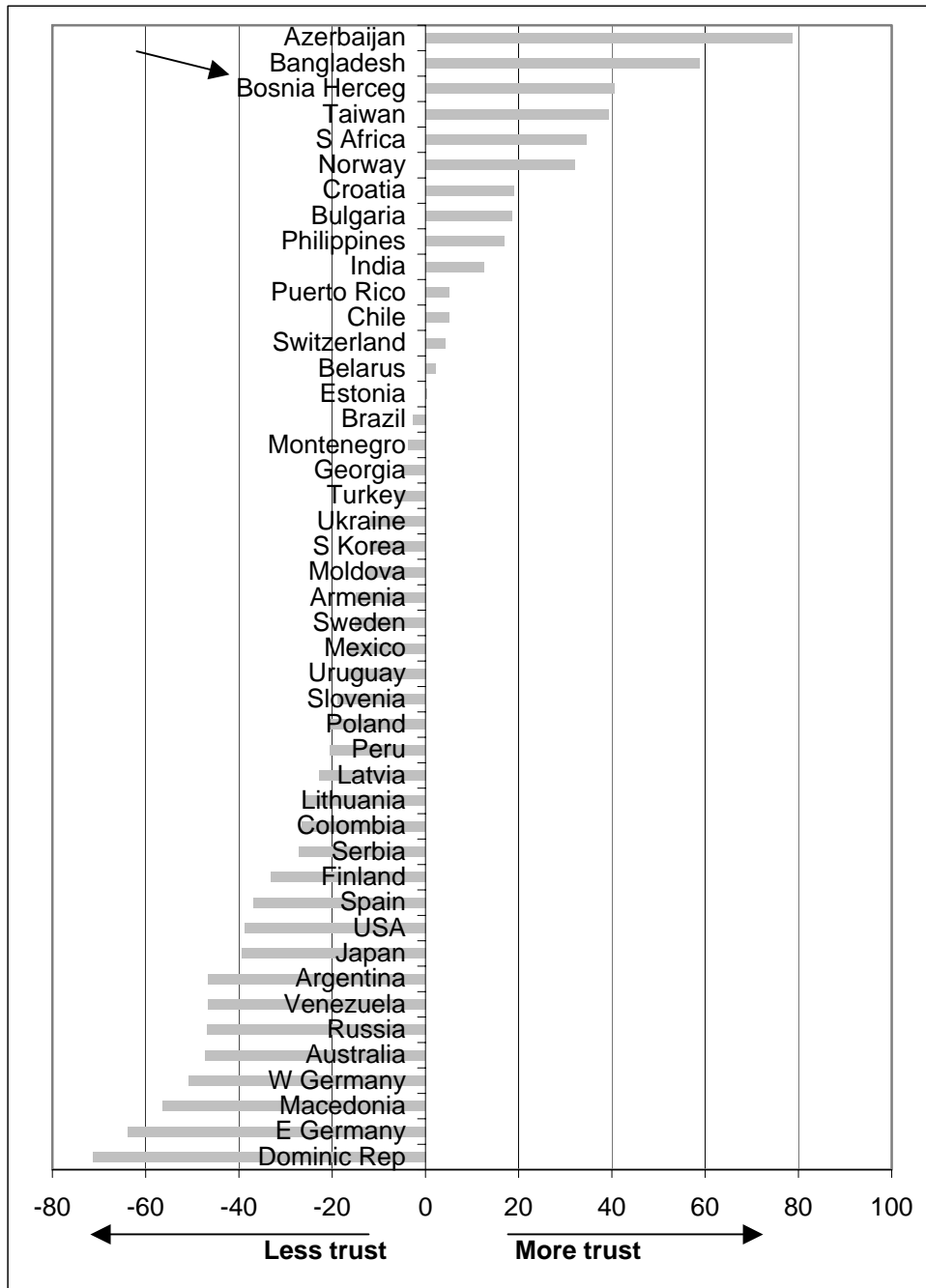


Source: World Value Survey 1995-1997

When it comes to trust in the civil service, BiH comes in 6th place. In countries like Norway, W Germany and Sweden the citizens have lower trust in the civil service than the citizens in BiH.

This is of course surprising because we believe that a general view is that the civil service is more effective in Norway, W Germany and Sweden. However, there might be a connection between effectiveness and how critical and demanding the citizens are. This is, however, speculation outside the field of this report.

Figure 1c.
Citizen's confidence in the **government**,
Net trust.



Source: World Value Survey 1995-1997

Figure 1a-1c show that institutional trust was very high in BiH in 1998, compared to other countries. All three variables put BiH in top. It might be important to point out that this is the respondents' perception of their institutions. As we have pointed out before, we don't know the quality of this number and have nothing to compare them with, as it was the first time BiH took part in a WVS.

To test the consistency in the answers we present the results from another question in figure 2. The respondent were asked:

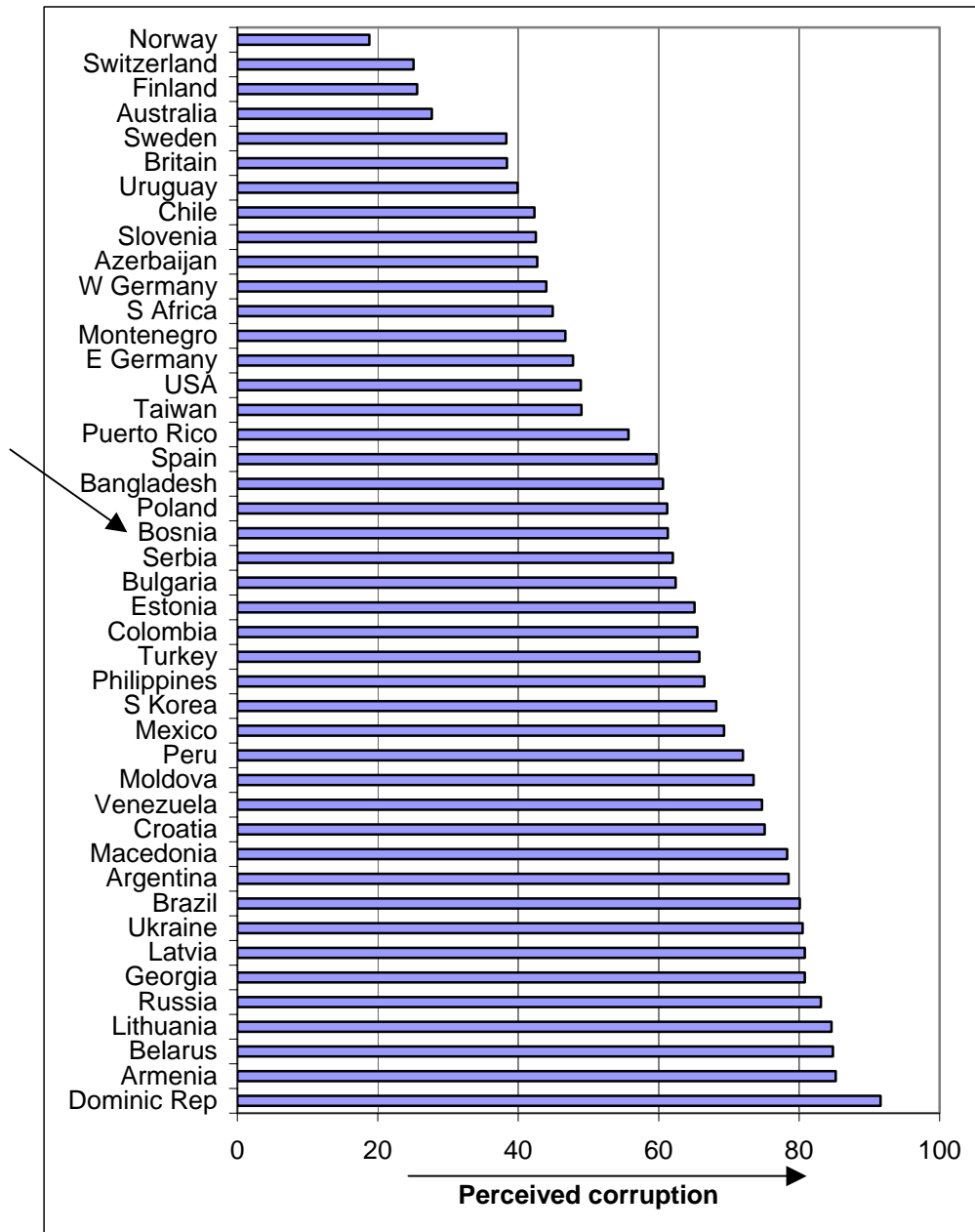
“How widespread do you think bribe taking and corruption is in this country?”

The answering alternatives were:

*Almost no public officials are engaged in it,
A few public officials are engaged in it,
Most public officials are engaged in it,
Almost all public official are engaged in it*

In figure 2 we added the most- and all- answers.

Figure 2
"How widespread do you think bribe taking and corruption is in this country?"



Source: World Value Survey 1995-1997

It is surprising to see that even though a lot of the BiH respondents have a great confidence in the civil service, over 60 % think that most or all public officials are engaged in corruption. It seems like these two results are not consistent. It might therefore be in place to warn for to excessive interpretations of the numbers given. We will treat these results with great carefulness.

However, one interpretation that we will allow us to do is that figure 1a-1c might show that there was a positive atmosphere at the time and maybe also, one could say, a belief in the future and high expectations.

6.3 The associational model

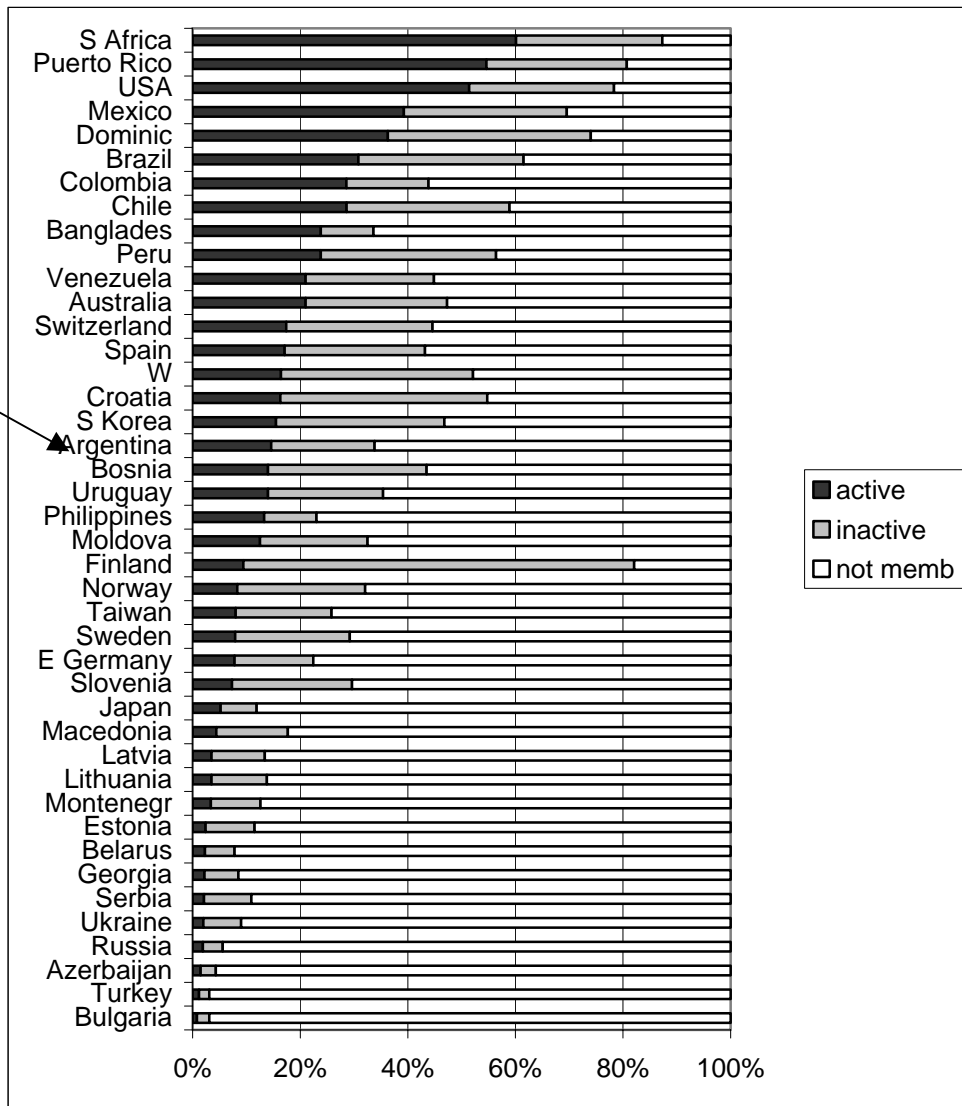
In the previous chapter we examined “the associational model” and found that there is a correlation between generalised trust and membership in associations. However, we couldn’t say anything about the causality, so we do not know if trusting people join associations or if people become trusting in the associations.

On the following pages we will examine the relation between membership in associations in BiH relative other countries. We will use the following question from the WVS:

“Now I am going to read off a list of voluntary organizations; for each one, could you tell me whether you are an active member, an inactive member or not a member of that type of organization?”

Figure 3a-3d show the result for memberships in churches and religious organizations, sport and recreation organizations, labour unions and political parties.

Figure 3a
Membership in churches or religious organizations

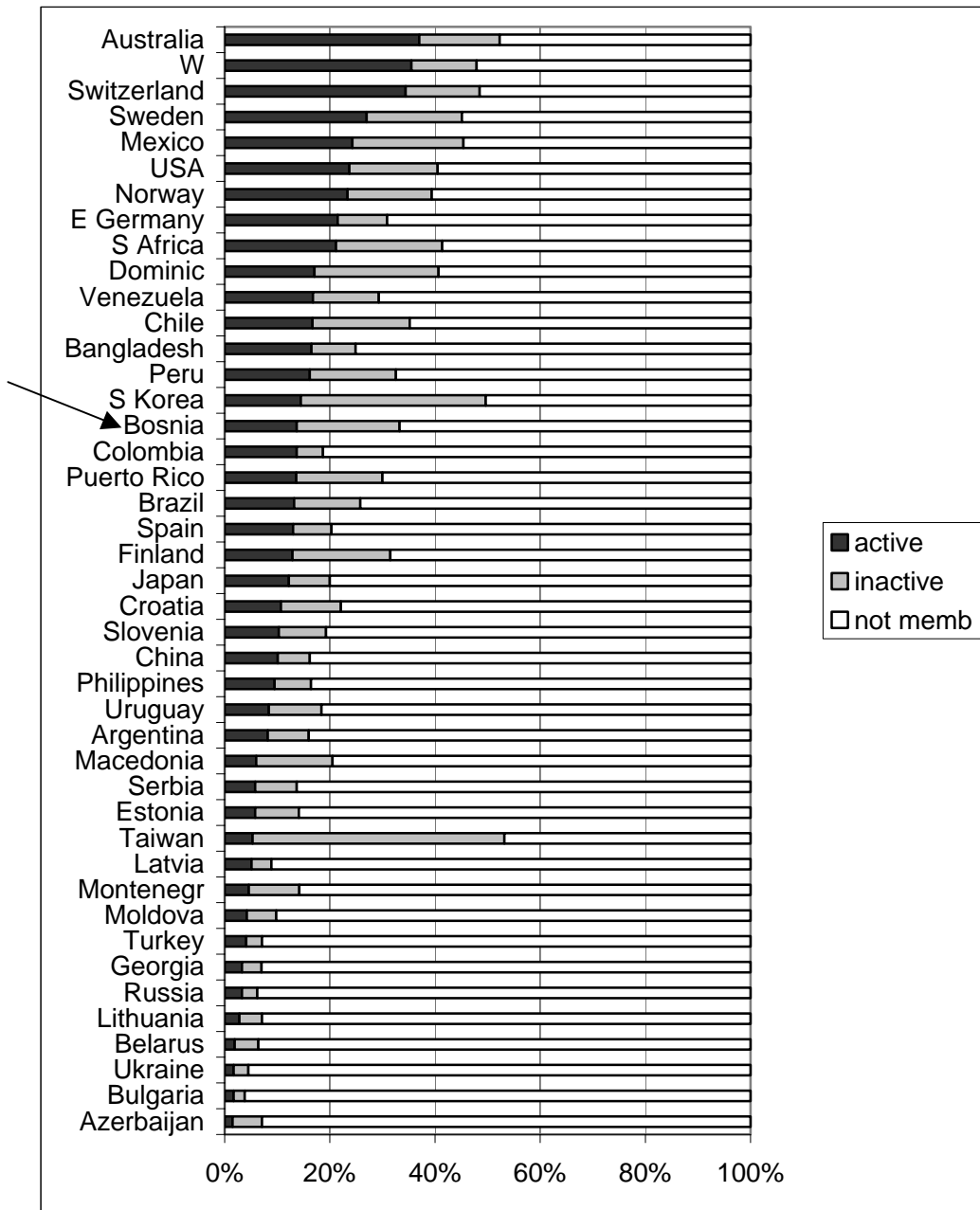


Source: World Value Survey 1995-1997

When it comes to membership in churches and religious communities BiH ends up in the middle. This might come as a surprise when you think about the role religion plays when it comes to separating people into nationalities.

On the other hand, other countries of the ex Yugoslavia like Serbia, Montenegro, Macedonia and Slovenia have lower memberships in religious communities. Only Croatia has more people active in the churches.

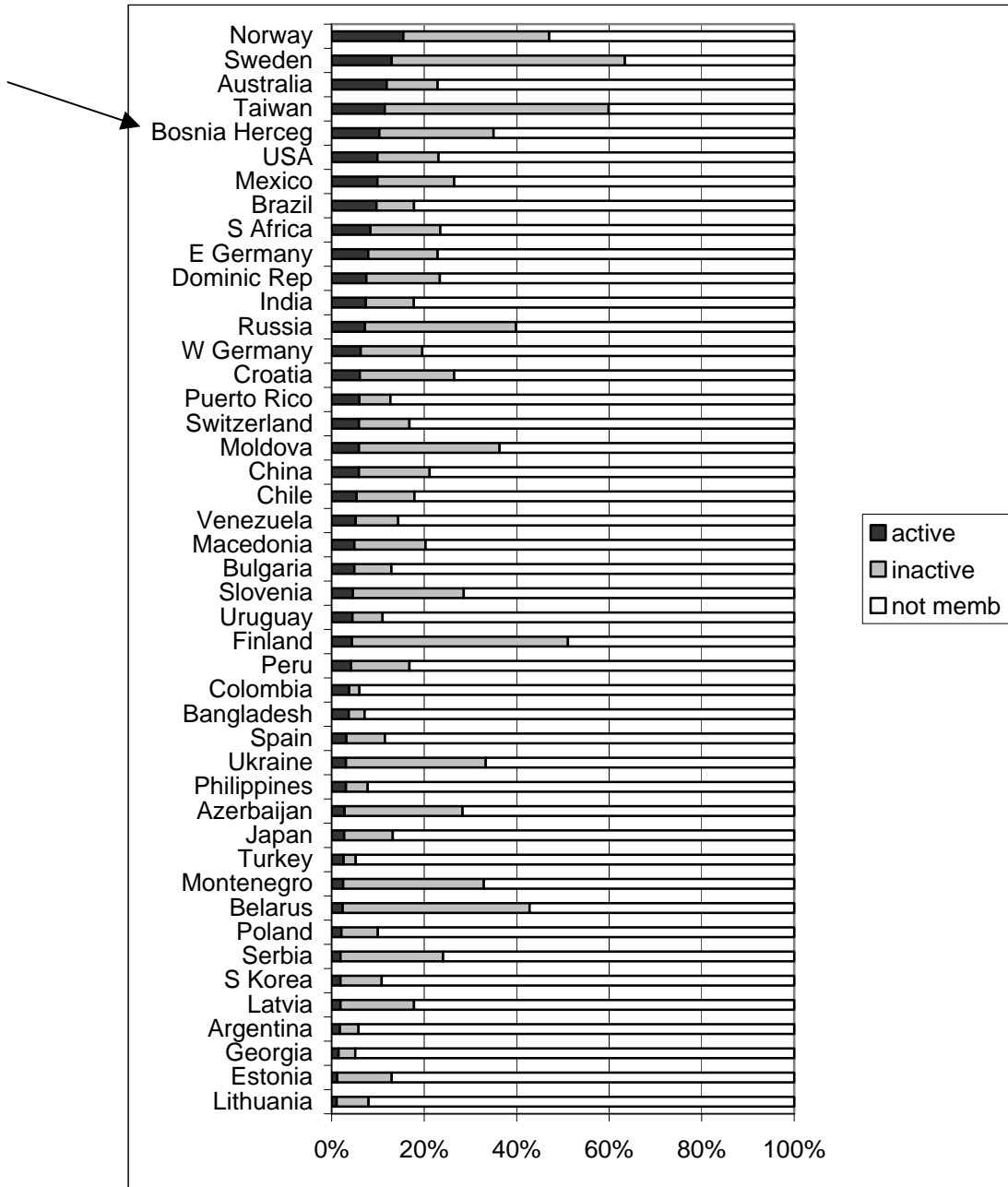
Figure 3b
Membership in sport or recreation organizations



Source: World Value Survey 1995-1997

Also when it comes to membership in sport clubs and recreation organisations BiH takes a position in the middle. However, compared with other countries of the ex. Yugoslavia, BiH has more people active in sport clubs than any other of these countries, according to this data.

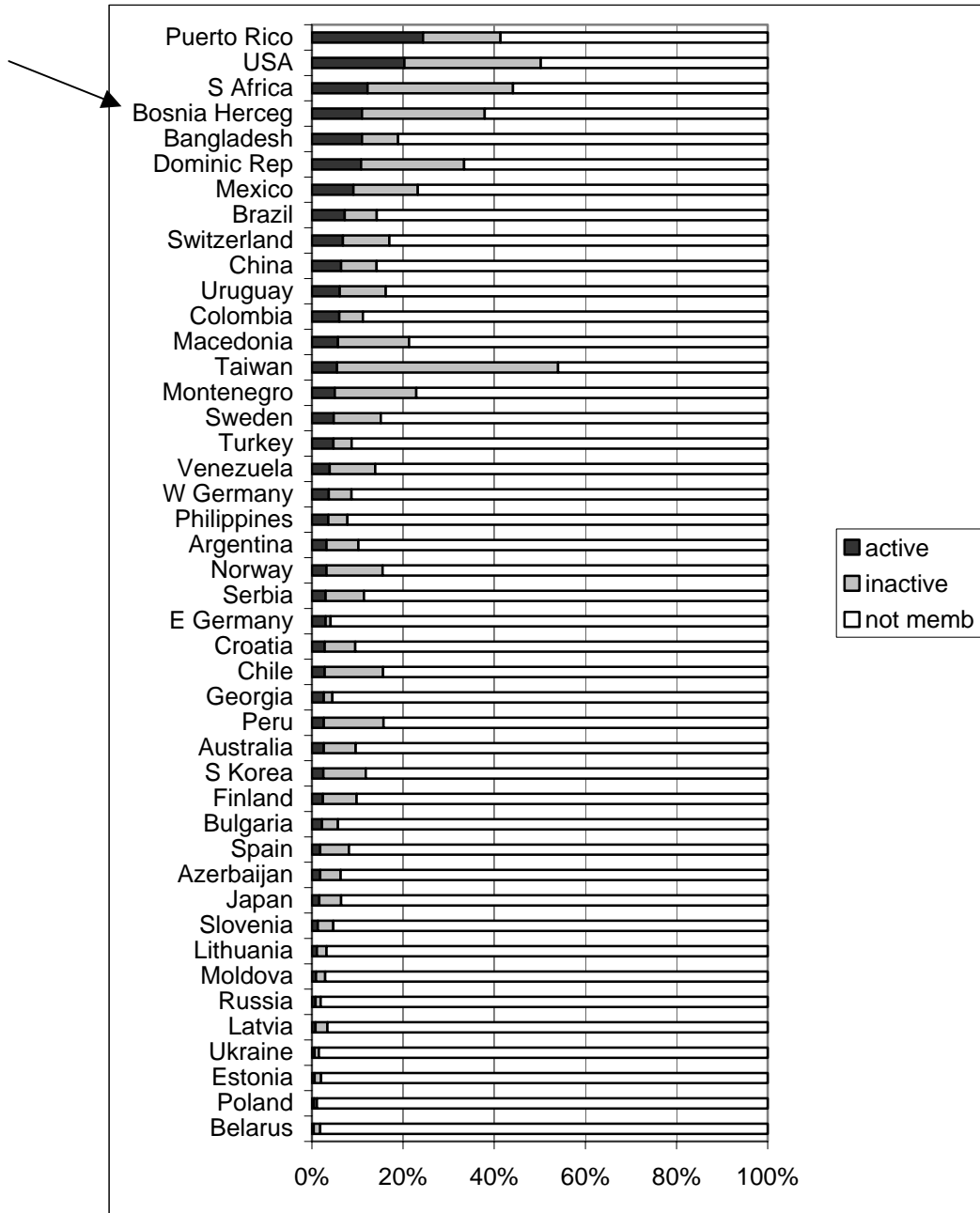
Figure 3c
Membership in labour unions



Source: World Value Survey 1995-1997

When it comes to active membership in labour unions BiH is among the countries in top. Only Norway, Sweden, Australia and Taiwan are above BiH.

Figure 3d
Membership in political parties



Source: World Value Survey 1995-1997

Also when it comes to active membership in political parties this data puts BiH among the countries in the top.

So, a conclusion from figure 3a-3d is that that according to the WVS data membership in labour unions and political parties are rather common (relatively to other countries) in BiH. When it comes to membership in churches/religious organisations and memberships in sport or recreation organisations BiH takes a place in the middle.

6.4 Conclusions

It is, of course, difficult to compare countries. The result from each single country depends upon how the question is interpreted by the respondent, but also upon how the question was translated. However, we believe that comparisons put levels in perspective and might help the understanding of the question.

According to the WVS and comparisons between BiH and other countries the year 1998, BiH landed quite high when it came to both institutional trust and association affiliation. It shouldn't then be surprising that BiH also show high levels of generalised trust.

In the next chapter we will explore what has happened over time.

7 Comparisons over time

When we compare the WVS from 1998 with the Social Trust Survey from December 2003, it is obvious that social trust has decreased. In this section we will try to find out why social trust has decreased by tracing our explanatory variables. Table 14 shows the decrease in generalised trust.

Table 14
Comparison of generalised trust
“Generally speaking, would you say that most people can be trusted or that you can’t be too careful in dealing with people?”

	<i>WVS 1998</i>	<i>Social Trust Survey 2003</i>
“Most people can be trusted”	26.9 %	14.5 %

Source: WVS 1998 and Social Trust Survey 2003

It is most important to point out the difficulty and the hazard in comparing different surveys. The exact wording of the question is of huge importance for the outcome. The wordings of the questions differ between the two surveys (even if it doesn’t differ when it comes to the generalised trust question). Of course, survey methodology is also important, how the sample was drawn, if there are systematic errors and so on.

Altogether this gives us reason to point out that the data and the interpretations have to be treated carefully. Quantitative data sometimes gives a false exactness that can be problematic to handle.

It is also important to remember the chaos BiH was in 1998.

7.1 Has institutional trust decreased?

We found in earlier chapter a positive correlation between institutional trust (when it concerns trust in the government and the welfare systems) and generalised trust. This means that if institutional trust increases (respectively decreases) generalised trust should also increase (respectively decrease). Table 2 compares these explanatory variables between WVS 1998 and the Social Trust Survey 2003.

In the WVS 1998 the respondents answered the following:

“I am going to name a number of organizations. For each one, could you tell me how much confidence you have in them: is it a great deal of confidence, quite a lot of confidence, not very much confidence or none at all?”

The wording in the Social Trust Survey is close, but not the same:

This question is about your trust in the authorities. Which of the following institutions do you trust, trust to some extent, distrust to some extent, or distrust.

In table 15 we added “Great deal of confidence”-answers with the “Quite a lot of confidence”-answers for the WVS and the “Trust”- and the “Trust to some extent”-answers.

Table 15
Comparison of institutional trust

WVS 1998		Social trust survey 2003	
	great deal and quite		Trust and trust some
Legal system	69.4%	Courts	65.2%
Government	69.3%	Central Government	49.8%
		Entity Government	52.8%
Civil service	59.2%	The school system	77.5%
		Health care	75.2%

Source: WVS 1998 and Social Trust Survey 2003

As table 15 shows the institutions that were given as alternatives were not the same in the two surveys. As said earlier, it is not clear which government was meant in WVS and which government the respondent thought about when answering. However, whether it was the entity government or the central government, we believe that compared with the WVS 1998, the Social Trust Survey 2003 show that trust/confidence has decreased. In the chapter 5 we showed that governmental trust is highly connected to generalised trust.

When it comes to the legal system and the courts we cannot see any big change. Besides, in chapter 5 we couldn't see that trust in the legal system (in our variable this also included the police and the army) effected generalised trust.

In chapter 5 the results showed that trust in the school system and the health care (we called this welfare system) was a explanatory variable for generalised trust. However, WVS does not have any variable for these kinds of systems. Instead the WVS has a variable for confidence in the civil service. This is however something else and cannot be compared with the school and the health care systems.

7.2 Are people less active in associations?

In chapter 5 we showed that being an active member in an association makes a difference when it comes to generalised trust. Therefore it is important, because of decreasing generalised trust, to look at the trends of association affiliation. Table 16 show comparisons between the WVS 1998 and the Social Trust Survey 2003. In the table the active and the inactive members has been added.

Table 16
Comparison of active association affiliation

<i>WVS 1998</i>		<i>Social trust survey 2003</i>	
	Active members		Active members
Church or religious organization	14.0%	Religious community/organisation	11.9%
Sport or recreation org	13.7%	Sport clubs or official supporter clubs	3.9%
Labour union	10.3%	Trade union	2.9%
Political party	11.0%	Political party	3.0%
Professional association	7.8%	Professional/business association	1.7%
Charitable organization	6.7%	Charity organisations	1.5%
Art. music or educational org	6.9%	Cultural groups (e.g. music group or theatre group)	1.9%
Environmental org	2.9%	Environmental/ecological organisation	0.9%
		Women's association	1.7%
		Pensioners Assoc	2.1%
		Youth Club/disability	1.1%
		Association of entrepreneurs	0.7%
		Citizens' association	1.9%
		Parent-teacher association	2.1%
Any other voluntary org	5.4%	Any other club or group that meets regularly	3.7%

Source: WVS 1998 and Social Trust Survey 2003

As can be seen in table 16, there is a huge difference in the numbers. This can come from the fact that the question has been phrased a bit differently, that there is a difference in which organisations to choose from, or from the fact that different organisations have been put together in the same group. For example, in the WVS the alternative is sport or recreation organisations, in the Social Trust Survey the alternative is sport clubs or official supporter clubs. This is, of course, not the same thing.

Also very important is what the sample looked like; if the sample was representative or not. Given this context, we can probably all the same say that association affiliation decreased between 1998 and 2003.

It is, however, obvious that the numbers of many of the organisations in the Social trust survey is very small. Another fact is that there are more associations to choose from in the Social trust survey. This might explain the difference in the “any other”-alternative differ between the two surveys.

So, even if there are a lot of reasons to be careful, we can say that the comparison between the two surveys indicate that there has been a drop in active association affiliation. However, we need more research to be able to say for sure. We will come back to this later.

7.3 Financial situation

In chapter 3 we found that perceived financial status was a highly significant explanatory variable and positive correlated with generalised trust.

Perceived financial status is, of course, individual dependent and derives from the individual’s perception. However, in table 17 we look at change in the real variables. Table 17 shows Net average wage in the FBiH and in the RS 1998 and in June 2003. This number is, however, meaningless if we do not put it in relation to the living cost. The issue is whether an average net salary of an employee may ensure normal living. The consumer basket tells what a consumer goods basket costs. An average net salary in the FBiH was in June 2003 around 63 KM above the consumer goods basket. In the RS the average salary was 89 KM below. However, if we look at the development from 1998, the situation has improved.

Table 17
Average net wages and consumer basket, KM

	<i>FBiH</i>			<i>RS</i>		
	Average net wage	Consumer basket	Difference	Average net wage	Consumer basket	Difference
1998	329	452	-123	170	448	-278
jun-03	527	464	63	379	468	-89

Source: Centralna Banka Bosne Hercegovina (CBBH), Bulletin 2, 2003

The data shows that the financial situation has improved in a household with an average salary. However, this data do not say anything about the distribution of incomes.

7.4 Economic impact

Knack & Keefer (1997) and Zak & Knack (2001) show that social trust has an impact on economic performance. Social trust lowers transaction costs and thereby will social trust make economic transactions possible. This means that economic trust increases investment and growth. Zak & Knack has also shown that (theoretically) egalitarian distributions of income enhance trust, and thereby raise investment and growth and that there is a low-trust poverty trap. We have earlier in this paper shown that financial status is a central explanatory variable when it comes to understanding generalised trust.

Knack & Keefer found that a rise (or fall) in trust by 10 % points would increase (or decrease) growth by 0.8 % points. This means that if BiH social trust wouldn't had fallen with 12 % points, the economic growth would be around 1 % point higher today. In the year 2001 the BiH Gross Domestic Product was 10 480 million KM. In "real money" the loss in growth means a yearly loss of more than 100 million KM.

However, for BiH the loss might be even bigger. Knack & Keefer used data from 29 countries of which the most of them are well developed, grown economies. BiH is a emerging market and a developing economy. It is well known that BiH started off from a low point after five years of war and a ruined economy. To have high transactional costs (like low generalised trust) hinders businesses from being started and good ideas will never develop into growing industries.

Zak and Knack (2001) show that, even if various institutional characteristics that facilitate investment and growth, such as protection of property rights and contract enforceability, are controlled for, generalised trust is still an important predictor of economic growth. They show that low trust environments reduce the rate of investment. They also identify a low trust poverty trap. They propose that trust levels below 26% investment is effectively stalled. BiH levels of trust are well below this cut off.

7.5 Conclusions

As we pointed out in the beginning of this chapter it is difficult to compare surveys. However, if we allow ourselves to do that we see that generalised trust has dropped by 12 % points. If we look at data from the WVS 1998 and the Social Trust Survey 2003 we can see that at least two important explanatory variables has decreased. That is the trust in the government and association affiliation.

When it comes to financial situation we can see our conclusion is that the purchasing power has increased, at least from what we can observe from the average net wage. From this we draw the conclusion that the perceived financial status also has increased. A decrease in financial status can therefore hardly be an explanation why generalised trust has decreased between 1998 and 2003.

However, from our multiple regressions in chapter 5 (and appendix 1) we saw that institutional trust in the government and active association affiliation increased trust. These are variables that show a decrease between the two surveys.

8 Key findings and recommendations

This chapter summarises the key findings in this study. We define who trusts and why in Bosnia Herzegovina, identify the reasons why trust has declined over recent years, and recommend broad areas for action to increase levels of trust in the future.

These are key issues, as generalised trust – defined as trust that extends beyond the boundaries of face-to-face interaction and incorporates people not personally known – underpins economic growth, democratisation, and people’s general well-being and happiness.

8.1 Key findings

8.1.1 Decreasing trust leads to lower growth

The study indicates that the people of Bosnia Herzegovina are less trusting in 2003 than they were in 1998. In this study, 14.5% of respondents believed they could trust most people, compared with 84.2% who believed one generally had to be careful when dealing with people. In 1998, World Values Survey data showed that 26.9% of respondents trusted in general.

Researchers have proposed that growth follows trust, and have quantified the relationship between generalised trust and economic growth. For Bosnia Herzegovina, an 12 percentage point drop in generalised trust has contributed to a shortfall in economic growth of around 1 percent. Roughly speaking, Bosnia Herzegovina loses 100 million KM every year due to this decline in generalised trust.

8.1.2 Who trusts whom?

The study data reveals a range of trust behaviour. Trust in family members is extremely high in line with tradition in Bosnia Herzegovina. There is a significantly decrease in levels of trust when respondents are asked how much they trust “people they know well” and “neighbours”, and another step down when the question is more general and related to trust in “people of the same ethnic group”, “people of other ethnic groups” and “people with a different way of life”.

8.1.3 Trust between nationalities

The question of trust between people of different nationalities in Bosnia Herzegovina was ubiquitous and intriguing as we designed this study. In our early discussions, with citizens of Bosnia Herzegovina and internationals alike, it was the subject of much speculation, with the general opinion being that we would find high levels of distrust between nationalities.

Our findings go some way towards disproving the idea that individuals in Bosnia Herzegovina harbour an intransigent distrust of people of the other nationalities.

Among respondents who trust all or most people of their own nationality, the individuals who also trust all or most people belonging to the other nationalities far outnumber those who are inclined to trust no one of the other nationalities. By far the largest group among respondents was the group who trust some of their own nationality and some of the other nationalities.

Our conclusion is that generalised trust is low, but that low trust is by no means exclusively related to nationality.

This picture remained relatively stable when we asked a specific question about how important nationality was when a person decided whom to ask to look after his or her house when they were away. Respondents who indicated that the nationality of that person was ‘not important’ or ‘not very important’ outnumbered those who felt it was ‘important’ or ‘somewhat important’.

Interestingly, the distribution of data on trust of ‘people with a different way of life’ was broadly similar to trust of ‘people from other ethnic groups’.

8.1.4 Hardliners

Moving on to explore trust between nationalities further, we used data from two survey questions to construct a variable that identified respondents with hardline attitudes towards trusting other nationalities. We were surprised to find that the ‘hardliner’ variable was positively correlated with generalised trust. Therefore, people with more nationalistic attitudes are more likely to agree that they can trust most people.

Our attempt to characterise hardliners from the study data indicated that hardliners are more likely to come from ethnically homogeneous regions, are more likely to live in rural areas and have low educational status, and be aged between 36 and 50 years old. They are less likely to have regular contact with people of the other nationalities.

Thus, contact is not associated with hardline attitudes according to this study, but lack of contact is. Hardliners are more likely to be associating with, and living next to, one another than next to someone of a different nationality.

8.1.5 Trust as a “situated” concept

The finding that hardliners trust more than others leads us to question the standard formulation of the generalised trust question. It would appear that the “most people” being referred to by “hardliner” respondents does not include people of other nationalities; such people simply do not enter the minds of our isolated hardliner as he or she answers this question. A question that asks about trust in “multiethnic Bosnia Herzegovina” is needed to measure generalised trust.

8.1.6 Regional trust

There are major differences in levels of generalised trust across the regions and cantons of Bosnia Herzegovina, with the extremes being the Western Herzegovina Canton where people trust the most (61.9% general trusters) and the Una Sana Canton where only 1.4% of respondents are general trusters. As we show throughout the study by using multiple regressions, a number of variables have to be taken into account when we start to explain “who trusts and why” and regional levels of trust, and they work simultaneously.

8.1.7 Who trusts and why?

In Chapters 3 and 5, we investigate “who trusts and why?” by examining a number of variables that other researchers have linked to generalised trust. This study enables us to establish relationships between various variables and generalised trust. It is, of course, more difficult to establish the causality in these relationships. However, we use established theory to interpret our findings and to propose how causality between variables and generalised trust might run.

Chapter 3 reports findings related to: age, gender, educational status, rural/urban settings, financial satisfaction, income inequality and ethnic homogeneity. From these results, we report a basic socio-demographic model of the general truster in Bosnia Herzegovina.

The likelihood of an individual being a general truster **decreases** if:

- He or she is aged 36-50 years
- Has a secondary or tertiary education.

The likelihood of an individual being a general truster **increases** if:

- He or she has a higher perceived financial status
- Lives in an ethnically more homogeneous region/canton.

A respondent’s gender, whether they come from a region/canton with more or less income inequality and whether they live in a rural or urban setting were not significant.

Chapter 5 extends this basic model on the basis of four current theories regarding the generation of trust. The likelihood of an individual being a general trustee **increases** if:

- He or she is an active member of an association
- Trusts the government and/or welfare services
- Has life experiences that reinforce a trusting attitude.

In addition, respondents who have more contact with people of other ethnic groups are more likely to trust people of other ethnic groups in general (see below).

8.1.8 Age and educational status

Contrary to the findings of other studies, mid-aged (36-50 years) respondents trusted in general less than older or younger respondents, and those with higher levels of education trusted in general less than those with only primary education. The picture of low trust persists even when other significant variables included in this study are taken into account in multiple regressions. This suggests that context specific variables are impacting on these groups (for example, the experience of ‘new poverty’; of post-traumatic stress; of displacement; or rural urban shift).

That the educational elite and the mid-aged population report relatively low levels of trust is worrying as both groups are key to economic development. That the trust levels of younger people have not been decimated by their experiences is, however, a positive sign for the future.

8.1.9 Individual financial status

Financial status has been shown elsewhere to be positively correlated with general trust. Our results show a positive correlation also in Bosnia Herzegovina; the higher an individual’s financial status, the higher probability that the respondent would trust people in general.

8.1.10 Ethnic homogeneity

Authors of cross-country comparisons have reported a positive relationship between ethnic homogeneity and generalised trust. In this study we have investigated ethnic homogeneity on a regional level. In this study, a respondent living in a region with higher ethnic homogeneity is more likely to be a general trustee.

Psychologists would attribute this effect of ethnic homogeneity on trust, in part, to a genetic predisposition to cooperate with people similar to oneself. As this predisposition is unlikely to vary much across societies, this factor explains baseline cooperative behaviour.

Accordingly, the relationship between trust and ethnic homogeneity in this study is rather “muddy”, indicating the simultaneous impact of other social, economic and institutional variables.

8.1.11 Levels of contact

Contact theory underpinned survey questions that enabled us to find out how much contact there is between people of different nationalities, how much contact there is between people with different ways of life (a proxy for social distance), and if contact is related to trust.

There is a large group of respondents (37%) who report that they have contact with those of other nationalities “seldom or never”. This is worrying when we see that, of those respondents, 75% say they trust no one belonging to the other nationalities. Thirty-one percent of respondents “seldom or never” have contact with people having different ways of life.

However, overall, a respondent’s level of trust in people of the other nationalities or in people who are different from him or herself is positively correlated with the amount of contact the respondent has with those people. Surprisingly then, level of contact with the other nationalities was not significantly correlated with generalised trust in the multiple regressions.

The ‘hardliner’ finding referred to earlier may illuminate this paradox. People holding hardline views on trusting other nationalities were more likely to have little contact with people of other nationalities than people with more liberal attitudes. Thus we have respondents in this study who have low contact with and low trust of people of the other nationalities, and yet are more likely to register as generalised trusters. Increased levels of generalised trust among hardliner respondents may minimise or mask the effect of contact on generalised trust.

Further research with a revised “generalised trust” question is necessary to re-examine the link between contact and generalised trust.

8.1.12 Associational membership

Due to the interest in Putnam’s social capital concept that includes generalised trust as a central component, and his conclusion that associational membership is one variable underlying social capital development, we were interested to look closely at associational membership in this study.

Our findings show that active membership of associations is positively linked with general trust. In other words, people who are active members of an association are more likely to trust people in general. Inactive members, however, are not different from non-members in terms of generalised trust.

It is interesting that hotspots of civil society development, such as the Tuzla and Sarajevo Cantons, do not show relatively high levels of trust. We conclude that the level of active association membership needs to be increased in order to impact on overall levels of generalised trust.

8.1.13 Institutional trust

According to one model explaining the generation of trust, trustworthy institutions are key to the process.

In this study, trust in the governments on different levels and in the welfare systems are positively correlated with level of general trust. That is, if an individual trusts the governments and/or the welfare systems, the probability of that individual being a general trustor is greater than that of someone who does not trust these institutions.

In light of recent gains by the national parties in the 2002 elections, we wanted to know if hardliner respondents were more likely to trust the government. If this had been the case, we would have suspected that levels of trust reflected what particular parties represent rather than day-to-day experiences of the trustworthiness of these institutions. However, this was not the case.

There were no significant correlations between trust in the army, police or the courts and generalised trust. This was surprising as theoretically and intuitively, one would expect general trust to be closely related to trust in the institutions that legislate and protect people's rights, contracts, security and so on.

8.1.14 Trust over time and compared with other countries

As far as we know, this is the first measure of generalised trust in Bosnia Herzegovina since 1998, when it was measured as part of the World Values Survey (WVS).³⁸ Access to the WVS data enables us tentatively to compare trust and associated variables over time and between countries.

That any level of generalised trust persists is perhaps surprising in light of the conflict. The fact that around 5.9% of the population was killed or is missing and 50% were displaced from their homes, would suggest that, with loss as such a dominant issue, levels of trust would have been decimated.

It could be that the 1998 levels of generalised trust reflected a "honeymoon" moment for the new State: post-conflict, huge amounts of money flowing in as foreign aid, international forces underpinning security, new government(s) elected and strategies for political and economic transition in place; people in dire financial status but to a great extent all in the same boat.

At the 1998 levels of generalised trust, Bosnia Herzegovina was in among the mid-level trusting countries included in the WVS. If we transposed the 2003 levels of generalised trust into the 1998 'league table' of generalised trust, Bosnia Herzegovina would land in the middle to lower end of the

³⁸ See WVS (1998)

spectrum. Interestingly, Slovenia and Poland had levels of general trust of 15.5% and 16.9% respectively in 1998.

8.1.15 Why has trust decreased?

Using WVS data we were able to track over time several, but not all, of the variables significantly related to generalised trust in this study.

- ◆ During the period of 1998 to 2003 we identified a large drop in associational membership across the board, but especially in trades unions, professional associations and political parties. Only membership in religious associations has been maintained at anything close to 1998 levels. This pattern may be particularly unfortunate, since research suggests that it is membership in associations with political and/or redistributive objectives that positively correlate with generalised trust.
- ◆ Over the 1998 to 2003 period, we observe that while trust in the courts, army, police has held up, trust in all levels of government has decreased by around 10%. Thus a decrease in trust in key institutions could be one reason for a decrease in general trust between 1998 and 2003.
- ◆ Since real income has increased during the period 1998 to 2003, we cannot say that decreasing trust is related to income. However, we propose that future research might usefully investigate the relationship between financial satisfaction and generalised trust.
- ◆ We suggest that majority returns have not significantly affected ethnicity-related variables over this period. However, it would be interesting in further research to gauge the indirect impact of the relatively small numbers of minority returns on generalised trust via generalised anxiety and other emotions surrounding the issue.
- ◆ Using the study variables we are able to address the study questions partially, but it is clear that other variables important in the context of Bosnia Herzegovina need to be investigated further in order to provide a more complete picture (for example, the ongoing experience of ‘new poverty’; dashed expectations; post traumatic stress; of displacement; and/or rural urban shift).

8.2 A policy for trust

On the basis of this study, a policy to generate trust would include initiatives to:

⇒ Increase active associational membership, perhaps by investing in community-based organisations that would appeal to the 6 out of 10 respondents who are not currently members of any group or association.

⇒ Improve governance and deal with corruption throughout political life and throughout the public services. Politicians and public sector workers need to know that, by acting corruptly, they may be pushing the people of Bosnia Herzegovina into a downward spiral of decreasing trust and associated decreased economic prospects.

⇒ Create meeting points that increase opportunities for contact between people of different nationalities and between people with different ways of life in general; in the school system, work, social and associational life.

⇒ Improve financial status across the country, and guard against increasing income inequalities. We believe that the result shows that income distribution matters. Even if we have not been able to establish a correlation between income distribution and trust on a regional basis, we have shown that people with a lower perceived financial status trust less than others. The implication from this is that it is important to increase the income for the poor. However, we are well aware of that economic performance today is low and the entity/canton/municipality purses are empty. The policy that has to be considered when it comes to a policy for income satisfaction is effective national tax collection and re-distributive economic policies. In terms of maintaining levels of trust, the emphasis of economic interventions should have been on maintaining employment rather than taking a hard line on establishing a market driven economy.

⇒ Focus on low trust regions/cantons. We have showed that people in ethnic heterogeneous areas trust less than others. The implication from this is that more work has to be put in for specific areas with an ethnic heterogeneous population and low trust.

Overall, the picture with respect to trust between people of the different nationalities, and the effects on trust of contact between nationalities and across social divides is brighter than might have been expected. Sharing this information with citizens may have a positive impact on political processes and counter anxiety around the issues of return and a multiethnic Bosnia Herzegovina.

8.3 Further research

Certainly, our work to date indicates the potential value of further research to clarify which way causality runs between generalised trust and significant variables such as institutional trust, active membership of associations, contact.

A larger survey would make it possible to distinguish more clearly between different types of association and institution in terms of their effects on generalised trust, and to draw firm conclusions about regional/cantonal differences in levels of trust.

It would be interesting to look in more detail into why certain variables such as age, educational status, trust in the courts and police, do not show the same relationships with generalised trust that have been found in other countries. Context-specific variables, such as displacement and return, 'new' poverty, post-traumatic stress, deserve further investigation.

Qualitative research should now be considered as a tool to produce a greater depth of understanding of these complex issues.

8.3.1 Track trust trends

The decrease we see in level of general trust between 1998 and 2003 is disturbing. The lack of data concerning levels of trust in the intervening years makes it difficult to be precise about why the level has fallen and whether it has already hit its lowest level or is still falling.

It is vital that ongoing research using a revised question to measure trust continues to track the level of generalised trust in Bosnia Herzegovina and the variables that may affect it.

Appendix 1: Regressions

Multiple logit regressions and estimations

Multiple regressions give us an opportunity to consider a range of variables simultaneously. In this appendix we will give a technical report on the multiple regressions and estimations that our conclusions in chapter 3, 4 and 5 are based upon. We have through out this study run a logit model, where the dependent variable is a dummy variable (either 1 or 0).

The basic model

Our basic model will look like this:

$$(1) \quad \text{GTRUST} = \alpha + \beta_1 \text{MIDAGE} + \beta_2 \text{EDU2} + \beta_3 \text{EDU3} + \beta_4 \text{FSAT} + \beta_5 \text{ETHNIC}$$

Table 1 gives a full explanation of all variables in the basic model.

Table 1
Variables used in the basic model

<i>Variable</i>	<i>Expected sign</i>	<i>Explanation</i>
GTRUST	Dependent	Question: Circle the statement you agree with the most? "Most people can be trusted" = 1 "You must be careful dealing with people" = 0
MIDAGE	-	age 36-50 = 1, if not (others) = 0
EDU2	+	Secondary schooling = 1, others = 0
EDU3	+	Tertiary schooling = 1, others = 0
FSAT	+	Question: Concerning the fact that the average incomes by households in BiH are 400 KM at the moment, in which category would you put your household? On the edge of existence = 1 Considerably below average = 2 Somewhat below average = 3 Around average = 4 Somewhat above average = 5 Considerably above average = 6
ETHNIC	+	The proportion of Bosniaks, Serbs, Croats and Others in the sample has been calculated for each region. On the basis of these proportions the standard error has been calculated. This means: More ethnical homogeneous region, higher homogeneity.
ETHNIC2	+	The biggest proportion in each region.
ETHNIC3	-	Ethnic dummy = 1 if ETHNIC2 < 0.67. ETHNIC3 = Ethnic dummy * ETHNIC2

The expected signs have to be commented. When we scrutinized the descriptive data we noticed that trust among the middle aged were much lower, than among the young and the old. However, results³⁹ from other research and from other countries have showed a positive correlation between trust and age. So, BiH sticks out because young people trust more. This might be a good sign for BiH, but more research is needed in this area.

³⁹ See for example Rothstein (2003) and Putnam (2000)

When it comes to education Rothstein⁴⁰ (among others) has showed that there is a positive correlation between trust and education. This also goes for perceived financial status (FSAT).

As commented before Knack & Keefer⁴¹ have noticed a positive correlation between ethnic homogeneity and trust. Zak & Knack⁴² have developed this hypothesis and find reason to believe that there is a turning point where the proportion of the majority community/nationality turns 0.66. This means that if the majority nationality represents 66 % or more of the population, there is a positive correlation between ethnic homogeneity and trust. This means that over 66 %, the more homogeneous area, the higher trust. Before 66 % the correlation should be negative (that is from 51 % to 66 %). We found the break point for our data to be 0.67 and used a dummy for the regions with a majority proportion under 0.67.

The variable ETHNIC is calculated from the standard errors from the regions. In this way we covers all the four groups Bosniaks, Croats, Serbs and Others. Zak & Knack uses the majority proportion in each country. Our ETHNIC2 is calculated in the same way for our 18 regions.

In table 2 the results from the basic model are showed. Model 1 is the basic model, while model 2 is an extension and includes an alternative way of measuring ethnic homogeneity.

⁴⁰ Rothstein (2003)

⁴¹ Knack & Keefer (1997)

⁴² Zak & Knack (2001)

Table 2
Estimations of the basic model

GTRUST	<i>Model 1</i>		<i>Model 2</i>	
	Coef.	P>z	Coef.	P>z
MIDAGE	-0.277	0.085	-0.282	0.080
EDU2	-0.320	0.058	-0.333	0.049
EDU3	-0.369	0.090	-0.358	0.101
FSAT	0.264	0.000	0.255	0.000
ETHNIC	10.923	0.000		
_CONS	-6.108	0.000	-8.781	0.000
RURAL				
ETHNIC2			7.579	0.000
ETHNIC3			1.777	0.002
Pseudo R2	0.071		0.075	
Prob>chi2	0.000		0.000	
Number of obs	1797		1797	

Source: Calculations of data from the social trust survey December 2003. Declined to answer and don't know answers have been excluded.

In the first model all variables are significant on the 10 %-level. However, the educational variable shows a non-expected sign. This is commented in other places in the report. The perceived financial status (FSAT) and ethnic homogeneity (ETHNIC) is significant with expected signs.

Model 2 shows no difference in results if we use a different way of calculating ethnic homogeneity. The value of the β -parameter is higher because variable values are higher when this method is applied. ETHNIC3 shows a positive sign. This means that the Zak & Knack findings cannot be applied here. However, the value of the β -parameter is lower. This means that the curve is “flatter” up till 0.67 where it becomes steeper.

The associational model

In chapter 2 we highlighted the associational model where membership or affiliation to associations is meant to increase the probability of becoming a person that trusts people in general.

The question in the questionnaire that highlighted association affiliation was:

“Are you a member (active or inactive) of any associations, teams or clubs of the following.”

Sport clubs or official supporter clubs, Political party, Professional/business association, Trade union, Religious community/organisation, Charity organisations, Women’s association, Pensioners Assoc, Youth Club/disability, Environmental/ecological organisation,

Cultural groups (e.g. music group or theatre group), Association of entrepreneurs, Citizens' association, Any other club or group that meets regularly.

We also put the question

“ARE YOU A MEMBER OF A PARENT COUNCIL?” Yes, no, don't know.

Our model specification looks like the following:

$$(2) \quad \text{GTRUST} = \alpha + \beta_1 \text{MIDAGE} + \beta_2 \text{EDU2} + \beta_3 \text{EDU3} + \beta_4 \text{FSAT} + \beta_5 \text{ETHNIC} + \beta_6 \text{INACTIVE} + \beta_7 \text{ACTIVE}$$

Table 3
Variables used in the associational model

<i>Variable</i>	<i>Expected sign</i>	<i>Explanation</i>
GTRUST	Dependent	Question: Circle the statement you agree with the most? “Most people can be trusted” = 1 “You must be careful dealing with people” = 0
MIDAGE	-	age 36-50 = 1, if not (others) = 0
EDU2	+	Secondary schooling = 1, others = 0
EDU3	+	Tertiary schooling = 1, others = 0
FSAT	+	Question: Concerning the fact that the average incomes by households in BiH are 400 KM at the moment, in which category would you put your household? On the edge of existence = 1 Considerably below average = 2 Somewhat below average = 3 Around average = 4 Somewhat above average = 5 Considerably above average = 6
ETHNIC	+	The proportion of Bosniaks, Serbs, Croats and Others in the sample has been calculated for each region. On the basis of these proportions the standard error has been calculated. This means: More ethnical homogeneous region, higher homogeneity.
INACTIVE	?	1 if the respondent is an inactive member in any of the above mentioned associations, 0 if not.
ACTIVE	+	1 if the respondent is an active member in any of the above mentioned associations or answers “Yes” being a member in PTA, 0 if not.

As earlier said, we have not separated different associations from each other in the model. The respondent is an active or inactive member in *any* association, and will belong to the ACTIVE respectively the INACTIVE variable. The reference in this model will be persons not belonging to any associations at all. According to the associational theory the ACTIVE variable are expected to be positively correlated with GTRUST. According to the theory, when you actively interact with people that you normally do not meet, you become a generalised truster.

Table 4 shows the estimations.

Table 4
Estimations of the associational model

GTRUST	Coef.	P>z
MIDAGE	-0.295	0.070
EDU2	-0.343	0.045
EDU3	-0.389	0.078
FSAT	0.248	0.000
ETHNIC	10.408	0.000
ACTIVE	0.397	0.008
INACTIVE	-0.009	0.957
_CONS	-5.985	0.000
Pseudo R2	0.079	
Prob>chi2	0.000	
Number of obs	1778	

Source: Calculations of data from the Social trust survey December 2003
Declined to answer and don't know answers have been excluded.

The result shows that active members in any association have a higher probability to become a person that trusts people in general, than persons who are not members. The result is significantly different from zero.

The inactive membership, however, is not significantly different from zero. This means that we cannot draw any conclusions from an inactive membership in an association.

The contact model

We have earlier described the contact theory where more contact should lead to more understanding, less prejudice, and consequently, more trust. We had the possibility to ask how much the respondent meets with others. For the variable we constructed we used “How often do you spend time with people from other nationalities” and “How often do you spend time with people with a different way of life”. From this question we constructed the variable DIFFPEOP that goes from 2 (a lot of contact with both groups) to 8 (very little contact with both groups). This gives us the following equation:

$$(3) \quad GTRUST = \alpha + \beta_1 MIDAGE + \beta_2 EDU2 + \beta_3 EDU3 + \beta_4 FSAT + \beta_5 ETHNIC + \beta_6 DIFFPEOP$$

Table 5 shows the variables in the equation.

Table 5
Variables used in multiple regressions in the contact model

<i>Variable</i>	<i>Expected sign</i>	<i>Explanation</i>
GTRUST	Dependent	Question: Circle the statement you agree with the most? “Most people can be trusted” = 1 “You must be careful dealing with people” = 0
MIDAGE	-	age 36-50 = 1, if not (others) = 0
EDU2	+	Secondary schooling = 1, others = 0
EDU3	+	Tertiary schooling = 1, others = 0
FSAT	+	Question: Concerning the fact that the average incomes by households in BiH are 400 KM at the moment, in which category would you put your household? On the edge of existence = 1 Considerably below average = 2 Somewhat below average = 3 Around average = 4 Somewhat above average = 5 Considerably above average = 6
ETHNIC	+	The proportion of Bosniaks, Serbs, Croats and Others in the sample has been calculated for each region. On the basis of these proportions the standard error has been calculated. This means: More ethnical homogeneous region, higher homogeneity.
DIFFPEOP	-	Question: a) How often do you spend time with people from other nationalities? Almost every day = 1, A few times every week = 2 A few times each month = 3, Seldom or never = 4 b) How often do you spend time with people with a different way of life? Almost every day = 1, A few times every week = 2 A few times each month = 3, Seldom or never = 4 Responses from the two questions are added for each respondent. This means that a respondent that answers “Almost every day” on both questions gets a 2. The scale goes from 2 to 8. 2 = A lot of contact, 8 = little contact

The expected sign when it comes to the DIFFPEOP is turned “upside-down”, because low numbers means a lot of contact and high numbers means no contact. According to the contact theory and the theory on the associational model, we expect that people that have a lot of contact with other groups to have a higher probability to be generalised trusters.

Table 6 shows the estimations from the contact model.

Table 6
Estimations of the contact model

GTRUST	Coef.	P>z
MIDAGE	-0.255	0.116
EDU2	-0.273	0.111
EDU3	-0.285	0.199
FSAT	0.265	0.000
ETHNIC	10.796	0.000
DIFFPEOP	0.005	0.913
_CONS	-6.152	0.000
Pseudo R2	0.071	
Prob>chi2	0.000	
Number of obs	1761	

Source: Calculations of data from the Social trust survey December 2003
Declined to answer and don't know answers have been excluded.

The result shows that the variable is *not* significantly different from zero. Because we dropped the “Don’t know”-answers the number of observations is less than in the basic model. The dropped “Don’t know”-answers also led to MIDAGE, EDU2 and EDU3 dropped in significance, but they didn’t change signs.

The institutional model

To be able to estimate the institutional model in a multiple regression model we have created five variables from the question on institutional trust. These variables are shown in table 7.

The question behind these variables is the following:

This question is about your trust in the authorities. Which of the following institutions do you trust, trust to some extent, distrust to some extent, or distrust. (Do not read Don’t know).

	<i>Trust</i>	<i>Trust to some extent</i>	<i>Neither nor</i>	<i>Distrust</i>	<i>DK</i>	<i>NA/DWA</i>
<i>Police</i>						

Army

Central Government

Entity Government

Municipality government

Courts

SFOR

The school system

Health care

This gives us the following model:

$$(4) \quad \text{GTRUST} = \alpha + \beta_1 \text{MIDAGE} + \beta_2 \text{EDU2} + \beta_3 \text{EDU3} + \beta_4 \text{FSAT} \\ + \beta_5 \text{ETHNIC} + \beta_6 \text{POLTRUST} + \beta_7 \text{LEGTRUST} + \\ \beta_8 \text{GOVTRUST} + \beta_9 \text{WELTRUST} + \beta_{10} \text{INTTRUST}$$

Table 7 shows the variables in the equation.

Table 7
Variables used in the institutional model

<i>Variable</i>	<i>Expected sign</i>	<i>Explanation</i>
GTRUST	Dependent	Question: Circle the statement you agree with the most? "Most people can be trusted" = 1 "You must be careful dealing with people" = 0
MIDAGE	-	age 36-50 = 1, if not (others) = 0
EDU2	+	Secondary schooling = 1, others = 0
EDU3	+	Tertiary schooling = 1, others = 0
FSAT	+	Question: Concerning the fact that the average incomes by households in BiH are 400 KM at the moment, in which category would you put your household? On the edge of existence = 1 Considerably below average = 2 Somewhat below average = 3 Around average = 4 Somewhat above average = 5 Considerably above average = 6
ETHNIC	+	The proportion of Bosniaks, Serbs, Croats and Others in the sample has been calculated for each region. On the basis of these proportions the standard error has been calculated. This means: More ethnical homogeneous region, higher homogeneity.
POLTRUST	+	1 if the respondent answered, "Trust" or "Trust to some extent" on Policy or Army , Neither nor or distrust = 0
LEGTRUST	+	1 if the respondent answered, "Trust" or "Trust to some extent" on Courts , Neither nor or distrust = 0
GOVTRUST	+	1 if the respondent answered, "Trust" or "Trust to some extent" on Central Government or Entity Government or Municipality Government , Neither nor or distrust = 0
WELTRUST	+	1 if the respondent answered, "Trust" or "Trust to some extent" on The school system or Health Care , Neither nor or distrust = 0
INTTRUST	+	1 if the respondent answered, "Trust" or "Trust to some extent" on SFOR or "Yes" on the OHR -question, Neither nor or distrust = 0

According to the institutional model and the game theory based model that it offers, the variables should be positively correlated with GTRUST.

Table 8 shows the results from the estimations.

Table 8
Estimations of the institutional model

GTRUST	Coef.	P>z
MIDAGE	-0.191	0.263
EDU2	-0.199	0.280
EDU3	-0.157	0.508
FSAT	0.273	0.000
ETHNIC	8.749	0.000
POLTRUST	-0.155	0.625
LEGTRUST	0.111	0.589
GOVTRUST	0.879	0.000
WELTRUST	0.500	0.067
INTTRUST	-0.379	0.028
_CONS	-6.263	0.000
Pseudo R2	0.103	
Prob>chi2	0.000	
Number of obs	1560	

Source: Calculations of data from the Social trust survey December 2003
Declined to answer and don't know answers have been excluded.

GOVTRUST and WELTRUST are positively correlated with GTRUST (as expected) and also significantly different from zero. The variable INTTRUST is negatively correlated with GTRUST. This might be surprising, but one has to keep in mind that the institutional model wasn't designed for the kind of international organisations like SFOR and OHR. One can easily argue that a person that trusts the international organisations believes that the international organisations should be in place because this person distrusts people in general in BiH.

Life experiences model

We tested our TRUSTER variable (see chapter 4) in a multiple regression. The model will then look like follows:

$$(5) \quad \text{GTRUST} = \alpha + \beta_1 \text{MIDAGE} + \beta_2 \text{EDU2} + \beta_3 \text{EDU3} + \beta_4 \text{FSAT} + \beta_5 \text{ETHNIC} + \beta_6 \text{TRUSTER}$$

Table 9 shows the variables in the equation.

Table 9
Variables used in multiple regressions in the TRUSTER model

<i>Variable</i>	<i>Expected sign</i>	<i>Explanation</i>
GTRUST	Dependent	Question: Circle the statement you agree with the most? "Most people can be trusted" = 1 "You must be careful dealing with people" = 0
MIDAGE	-	age 36-50 = 1, if not (others) = 0
EDU2	+	Secondary schooling = 1, others = 0
EDU3	+	Tertiary schooling = 1, others = 0
FSAT	+	Question: Concerning the fact that the average incomes by households in BiH are 400 KM at the moment, in which category would you put your household? On the edge of existence = 1 Considerably below average = 2 Somewhat below average = 3 Around average = 4 Somewhat above average = 5 Considerably above average = 6
ETHNIC	+	The proportion of Bosniaks, Serbs, Croats and Others in the sample has been calculated for each region. On the basis of these proportions the standard error has been calculated. This means: More ethnical homogeneous region, higher homogeneity.
TRUSTER	+	Question: We would like to make a few statements and would like you to say whether you in general agree or disagree: <i>"Most people tell a lie when they can benefit by doing so."</i> if "Agree" , then Distrust (=0), if "Disagree" then Trust (=1) <i>"If you drop your purse around here someone will see it and return it to you."</i> if "Agree" , then Trust (=1), if "Disagree" then Distrust (=0) <i>"People will take advantage of you when you work with them."</i> if "Agree" , then Distrust (=0), if "Disagree" then Trust (=1) <i>"If you have a problem, there is usually someone who can help you."</i> if "Agree" , then Trust (=1), if "Disagree" then Distrust (=0) <i>"People are always interested only in their own welfare."</i> if "Agree" , then Distrust (=0), if "Disagree" then Trust (=1) This gives us a variable, TRUSTER, that can take a value from 0 to 5, where 0 is a person that is a "distruster" on all five statements and 5 is a person that trusts on all 5 statements.

According to the Newton theory the expected sign of the TRUSTER variable should be positive. As before, the "Don't know"-answers is dropped. Table 10 shows the estimations from the TRUSTER model.

Table 10
Estimations of the TRUSTER model

GTRUST	Coef.	P>z
MIDAGE	-0.226	0.174
EDU2	-0.255	0.147
EDU3	-0.246	0.272
FSAT	0.223	0.000
ETHNIC	9.564	0.000
TRUSTER	0.394	0.000
_CONS	-6.339	0.000
Pseudo R2	0.106	
Prob>chi2	0.000	
Number of obs	1754	

Source: Calculations of data from the Social trust survey December 2003
 Declined to answer and don't know answers have been excluded.

The result shows that the TRUSTER variable is positively correlated with GTRUST (expected sign) and also significantly different from zero. This shows a subjective rationality among the respondents.

Partial trust

In chapter 4 we examines partial trust. Here we estimates the model with partial trust included. This gives us the following two models:

$$(6a) \quad GTRUST = \alpha + \beta_1 MIDAGE + \beta_2 EDU2 + \beta_3 EDU3 + \beta_4 FSAT + \beta_5 ETHNIC + \beta_6 HARDLINE$$

$$(6b) \quad GTRUST = \alpha + \beta_1 MIDAGE + \beta_2 EDU2 + \beta_3 EDU3 + \beta_4 FSAT + \beta_5 ETHNIC + \beta_6 ALL_NO + \beta_7 NO_ALL + \beta_8 NO_NO$$

Table 11
Variables used in multiple regressions in a partial trust model

<i>Variable</i>	<i>Expected sign</i>	<i>Explanation</i>
GTRUST	Dependent	Question: Circle the statement you agree with the most? "Most people can be trusted" = 1 "You must be careful dealing with people" = 0
MIDAGE	-	age 36-50 = 1, if not (others) = 0
EDU2	+	Secondary schooling = 1, others = 0
EDU3	+	Tertiary schooling = 1, others = 0
FSAT	+	Question: Concerning the fact that the average incomes by households in BiH are 400 KM at the moment, in which category would you put your household? On the edge of existence = 1 Considerably below average = 2 Somewhat below average = 3 Around average = 4 Somewhat above average = 5 Considerably above average = 6
ETHNIC	+	The proportion of Bosniaks, Serbs, Croats and Others in the sample has been calculated for each region. On the basis of these proportions the standard error has been calculated. This means: More ethnical homogeneous region, higher homogeneity.
HARDLINE	+	Question 1: Let's suppose that you were going away for one month and you would need someone to look after your house. Among your neighbours there are many different nationalities. How important is it to you that the person that would look after your house was of the same nationality as yourself? Would it be very important (1), important (2), not so important(3) or unimportant(4)? Question 2: When it comes to the three constituting people in BiH, do you agree or disagree with the following: People from the other nationalities are not as trustworthy as people from my own nationality. Do you agree to a large extent (1), agree to a small extent (2), disagree (3) or totally disagree (4)?" The HARDLINER variable added these two responses. This means it could go from 2 (very important+agree to large extent) to 8, where 2="hardliner", 8="liberal".
ALL_NO	-	The respondent trusts <i>All</i> or <i>Most</i> of own nationality and <i>Some</i> or <i>No</i> of other nationalities = 1, if not = 0
NO_ALL	-	The respondent trusts <i>Some</i> or <i>No</i> of own nationality and <i>All</i> or <i>Most</i> of other nationalities=1, if not = 0
NO_NO	-	The respondent trusts <i>Some</i> or <i>No</i> of own nationality and <i>Some</i> or <i>No</i> of other nationalities=1, if not=0

According to Rothstein's hypothesis about partial trust we expect people who are (here defined as) "liberals" to trust people in general more. Therefore we expect the HARDLINE variable to be positive (the more "liberal" the higher numbers).

When it comes to the ALL_NO, NO_ALL and the NO_NO, people who trust all (or most) of their own and all (or most) of other nationalities are the reference group. This means that in relation with the ALL_ALL-group, the groups above are expected to be negative, in accordance with the Rothstein hypothesis.

Table 12
Estimations of the partial trust model

GTRUST	<i>Model 1</i>		<i>Model 2</i>	
	Coef.	P>z	Coef.	P>z
MIDAGE	-0.291	0.077	-0.285	0.086
EDU2	-0.266	0.128	-0.337	0.052
EDU3	-0.273	0.231	-0.352	0.116
FSAT	0.257	0.000	0.297	0.000
ETHNIC	9.959	0.000	12.651	0.000
_CONS	-5.312	0.000	-5.698	0.000
HARDLINE	-0.099	0.025		
ALL_NO			-0.595	0.010
NO_NO			-1.543	0.000
NO_ALL			-0.709	0.183
Pseudo R2	0.076		0.118	
Prob>chi2	0.000		0.000	
Number of obs	1704		1778	

Source: Calculations of data from the Social trust survey December 2003
 Declined to answer and don't know answers have been excluded.

The estimations show a negative correlation between the HARDLINE variable and generalised trust. This is surprising and rejects the Rothstein hypothesis on partial trust. On the other hand is the ALL_NO variable negative as expected according to Rothstein's hypothesis. All variables are significantly different from zero on the 5 % level, except for the NO_ALL variable. This variable consisted of very few observations, on the other hand.

Regression on contact (OLS)

In the questionnaire we put the following question:

How often do you spend time with...

- *Family/relatives*
- *Neighbours*
- *Other people you know well*
- *People with your own nationality*
- *People with other nationalities*
- *People with a different way of life(e.g. professional career, different values, financial/social status, rural/urban etc.)*

The given alternatives to answer was:

- Almost every day
- A few times a week
- A few times each month
- Seldom or never

The purpose of the regression is to find out if there is a correlation between time spent and some major characteristics. The variables are presented in table 13.

Table 13
Variables used in the “spending time”-regressions

Variable	Explanation
TIMENAT	How often do you spend time with people from other nationality? Almost every day=1 A few times a week=2 A few times a month=3 Seldom or never=4
TIMEDIF	How often do you spend time with people with a different way of life? Almost every day=1 A few times a week=2 A few times a month=3 Seldom or never=4
RURAL	1 if rural, 0 if urban
MIDAGE	age 36-50 = 1, if not (others) = 0
OLD	age 51+ = 1, if not (others) = 0
MALE	If male=1, female=0
EDUCAT	Primary schooling = 1, Secondary schooling = 2, Tertiary schooling = 3
FSAT	Question: Concerning the fact that the average incomes by households in BiH are 400 KM at the moment, in which category would you put your household? On the edge of existence = 1 Considerably below average = 2 Somewhat below average = 3 Around average = 4 Somewhat above average = 5 Considerably above average = 6

The dependent variables show that the less time you spend, the higher “rate” which implies that we have to read the results “backwards”.

Table 14 and 15 show the results.

Table 14
Spending time with people from other nationalities

TIMENAT	Coef,	P>t
RURAL	0.213	0.000
MIDAGE	-0.036	0.546
OLD	-0.027	0.664
MALE	-0.004	0.927
EDUCAT	-0.108	0.008
FSAT	0.013	0.478
_CONS	3.073	0.000
R2	0.018	
Prob>F	0.000	
Obs	1761	

Source: Calculations of data from the Social trust survey December 2003
Declined to answer and don't know answers have been excluded.

The results from spending time with people from other nationalities show that people in rural areas spend less time with people from other nationalities than urban. The results also show that people with lower education more seldom meets people from other nationalities. All other variable are not significant. This means that gender, age and financial status do not matter when it comes to spending time with people from other nationalities.

Table 15
Spending time with people with a different way of life

TIMEDIF	Coef.	P>t
RURAL	-0.038	0.392
MIDAGE	0.112	0.037
OLD	0.073	0.193
MALE	-0.038	0.385
EDUCAT	-0.173	0.000
FSAT	-0.045	0.007
_CONS	3.424	0.000
R2	0.033	
Prob>F	0.000	
Obs	1761	

Source: Calculations of data from the Social trust survey December 2003
Declined to answer and don't know answers have been excluded.

The results from table 14 do not hold for table 15. The rural variable turns out to be insignificant. Instead it shows that the middle-aged seems to meet people with a different way of life more seldom than the young. The old, however, is not significantly different from the young. Neither here does gender matter, but both education and financial satisfaction is correlated with the spending time variable, indicating that the better of you are financially and the more well-educated you are, the more time you spend with people with a different way of life.

Appendix 2:

Formal expressions

The rate of specialisation

The rate of specialisation measures the percentage in a specific group in relation to this group's total proportion in the population. The formal expression is very simple.

$$(1) \quad S_p = \frac{n_{ij} / n_j}{n_i / n}$$

where

n = number of respondents in the sample
i = characteristics of respondent (here: young, middle aged or old)
j = answer (here: trust or careful)

This gives that if S_p is above 1 the group is “specialized” in this area. If it is under 1 it is the opposite.

Net trust

In chapter 6 we compare different countries and the citizen's confidence in the legal system, in the civil service and in the government. The respondents was asked the following question:

“I am going to name a number of organizations. For each one, could you tell me how much confidence you have in them: is it a great deal of confidence, quite a lot of confidence, not very much confidence or none at all?”

We added “A great deal of confidence” and “Quite a lot of confidence” and called this variable Trust (measured as a percentage of all respondents in that country). On the other side we added “Not very much confidence” and “None at all” and called this Distrust. The difference Trust minus Distrust became net value for trust, Net Trust.

More formally it can be expressed like this:

$$(1) \quad nettr_i = tr_i - dtr_i$$

$$(2) \quad t_i = \frac{(BIG_i + SOME_i)}{n_i} * 100$$

$$(3) \quad dtr_i = \frac{(SMALL_i + NO_i)}{n_i} * 100$$

where

nettr = net trust in percentage

tr = trust in percentage

dtr = distrust in percentage

BIG = number of respondents who answered "A great deal of confidence"

SOME = number of respondents who answered "Quite a lot of confidence"

SMALL = number of respondents who answered "Not very much confidence"

NO = number of respondents who answered "None at all"

n_i = number of respondents in country i

i = country

Appendix 3:

Descriptive analysis of age

When it comes to the age variable it is divided in three groups in the data; 18-35 year olds, 36-50 year olds and 51+. Table 1 shows the distribution of the age variable in relation to the generalised trust variable.

Table 1
Age groups distributed on careful and trusting
Number of respondents and rates

	<i>Age</i>			Total
	18-35	36-50	51+	
Careful	522	449	509	1480
	35.3 %	30.3 %	34.4 %	100 %
Trust	98	62	102	262
	37.4 %	23.7 %	38.9 %	100 %
Total	620	511	611	1742
	35.6 %	29.3 %	35.1 %	100 %

Source: Calculations of data from the Social trust survey December 2003

From the table it is possible to see that the middle aged respondents trust less than the young and the old. However, it is also obvious that this group is the smallest. To have a more exact measurement we therefore use the “rate of specialisation”. The rate of specialisation measures the percentage in a specific group (for example trust among the middle aged, 23.7 %) in relation to this group’s total proportion in the population (29.3 %). The formal expression is given in appendix 2.

This gives that if the rate of specialisation (S_p) is 1 the rate of (in this case) middle aged who are careful, answers exactly against the distribution of middle aged in the sample. Table 2 shows that there is a minor difference between age groups when it comes to the careful, but a bigger difference between age groups when it comes to trusters. The rate of the young that answered careful is less than the young ones proportion of the sample.⁴³ On the other hand the middle aged were over represented in relation to their proportion of the sample.

⁴³ ... because the rate 0.991 is less than 1.

Table2
Rate of specialisation (S_p) distributed on
age groups.

	<i>Age</i>		
	<i>18-35</i>	<i>36-50</i>	<i>51+</i>
Careful	0,991	1,034	0,981
Trust	1,051	0,807	1,11

Source: Calculations of data from the Social trust survey December 2003

So, the conclusion is that the middle aged separates from the other two groups most dramatically and the young and the old do not differ from each other.

Appendix 4:

Sampling methodology and procedure

The sampling and the interviewing were done by Prism Research, Sarajevo. The sampling for this survey follow the standard procedure used by Prism.

A random stratified sample representative of the current population of Bosnia and Herzegovina will be designed for the purposes of these surveys. The sample will be representative for the three 'ethnic-majority areas' (Bosniac-, Croat-, and Serb-majority areas) and also for the ethnic minorities residing in the three 'ethnic-majority areas'.

The data in this survey

The target population for this survey population of citizens of B&H over age 18.

In Bosnia and Herzegovina there exists the problem of a lack of accurate and reliable data about population parameters as the last census was conducted in 1991. A particular problem is posed by estimates relating to ethnic majority and ethnic minority populations within each of the three ethnic-majority areas. At Prism Research we use our own estimates based on a number of different sources, a description of which follows:

- For the estimate of the number of citizens in B&H that reside in urban areas (municipal centres) or rural areas (villages), we use estimated from the database of resident voters that has been maintained to date by the OSCE and later the Permanent Election Commission. According to the number of registered voters in B&H (aged 18+ years), over 80% of citizens if B&H are registered to vote. When we compare the number of registered voters by cantons in the Federation B&H with the official estimates of the Federation B&H Bureau of Statistics, the differences are minimal – not more than +/- 2%.
- For estimates of population structure by age and gender, we use the results of our own surveys, together with projections and extrapolations resulting from the World Bank LSMS project (where thousands of respondent households in 25 municipalities throughout B&H were interviewed).

- In relation to data about the number of members of minority populations, the only estimates that are available are based on the number of returnees and estimates of the number of people that did not move as a result of the war. The biggest problem is posed by distribution of ethnic minority populations by regions within ethnic-majority areas, and distribution by settlement type. In this case where we do not have any estimates, we use distribution by region and settlement type for the ethnic-majority populations.

Selection of Primary Sampling Points

The total sample of N=1500 within each survey will be divided into two sub samples: 1500 respondents comprised of 500 respondents of members of ethnic-majority populations in each of the three ethnic-majority areas + District Brčko.

To obtain 1500 valid interviews for ethnic majority areas, an initial sample size of 1560 will be used (10% of over sampling). This is divided into three units:

- 520 interviews with Croats from the Croat-majority areas in Federation B&H and 160 interviews
- 520 interviews with Bosniac from the Bosniac-majority areas in Federation B&H and 160 interviews
- 520 interviews with Serbs from Republika Srpska being the Serb-majority area and 160 interviews

The target sample size is then divided into blocks of 5 interviews each. This breaks down to 104 blocks of 5 interviews for each of three ethnic majority areas.

In this way three representative samples for each of the three ethnic-majority areas and ethnic groups are achieved. Using weighting, the data can be projected to the level of the entities and B&H overall. In this way representativeness will be achieved for ethnic-majority areas, the entities, and B&H overall.

For each of the three ethnic majority areas, an equal number of regional units are allocated.

For Croat majority areas in Federation B&H: The sample is divided into 5 regional units with Croats as majority in Federation B&H: Posavina Canton, Central Bosnia Canton, Herzegovina-Neretva Canton; Western Herzegovina Canton; H. Bosna Canton.

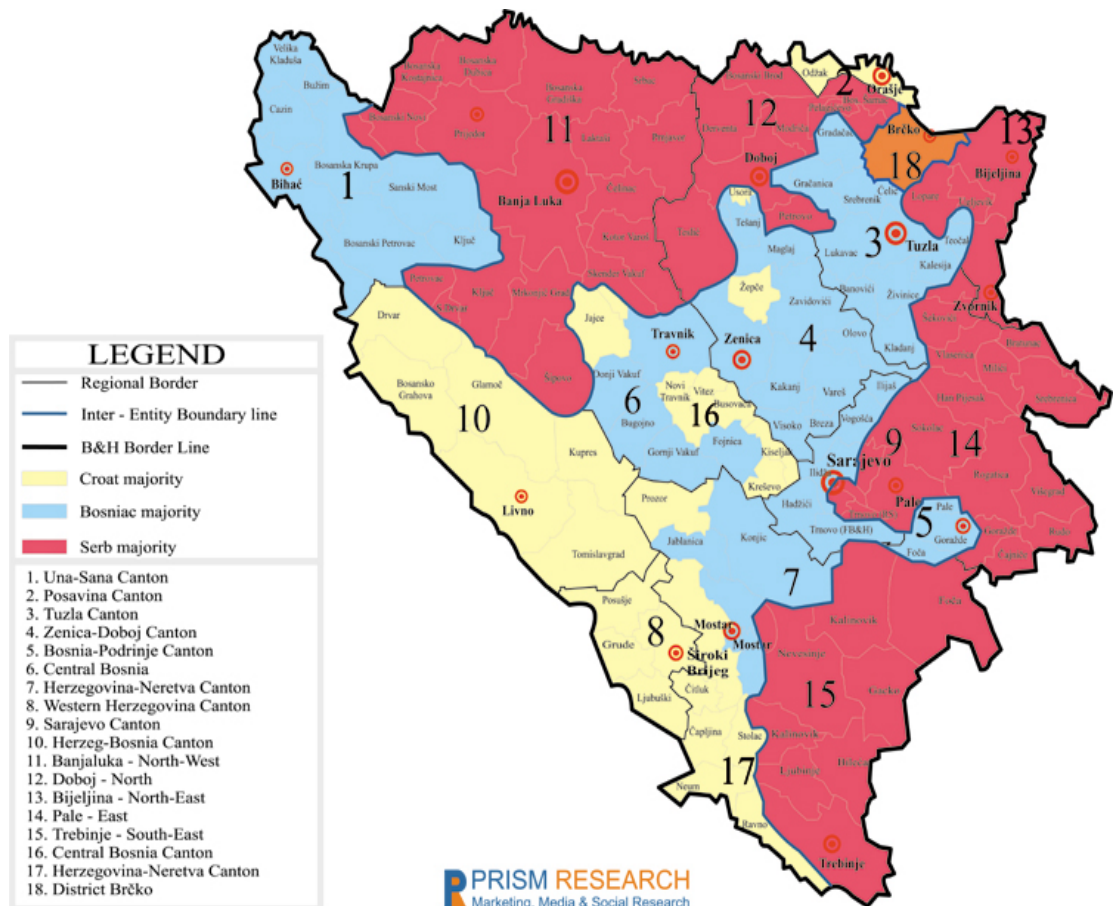
For Bosniac majority areas in Federation B&H: The sample is divided into 5 regional units with Bosniacs as majority in Federation B&H: Una-Sana

Canton, Tuzla Canton; Zenica-Doboj and Central Bosnia Canton, Herzegovina-Neretva Canton; Sarajevo-Gorazde Canton.

For the Republika Srpska as Serb majority areas: The sample is divided into five regional units North-West-Banja Luka; North-Doboj; North-East – Bijeljina; East – Pale and South-East – Trebinje - Trebinje.

District Brcko will be treated as separate region.

Image 1: Stratification of sample by entity, ethnic-majority area, region



Each regional unit will receive the proportional number of blocks according to its population size. The municipalities within each region are categorized by size into three groups: large size municipalities - regional centres, medium and small size municipalities.

Within each region, for each of the three categories of municipalities at least three municipalities are randomly selected. The total number of municipalities in the sample is min. 51 + District Brcko (max. 70 – over 50% of all municipalities in B&H). This provides adequate coverage of B&H and its parts.

All of the selected municipalities within each region received its proportion of blocks for that canton/region. 40% of the interviews for each selected municipality are assigned to villages and 60% to municipality centres and urban areas.

Selection of Secondary Sampling Points

In the selection of secondary sampling points a database of the streets in urban areas and villages in rural areas will be used. This database contains the following information:

Region	Municipality	Type of settlement - Urban/Rural	Settlement	Street/urban Village/rural
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For each of the selected municipalities, a random computer selection of streets and villages will be made from the far right column. For each municipality a reserve number of streets and villages will be selected. Selected villages are sometimes found to be deserted and/or completely devastated. In such cases, the first village on the reserve list replaces that village. In extreme cases, where the list of reserve villages is exhausted due to desertion or devastation, the interviewer is allowed to select the nearest neighbouring village where it is possible to conduct the survey.

Selected streets will be allocated a randomly selected number between 1 and 300 that represents the address of the starting point. If it is a three-digit number, and the selected street does not have that many numbers, the interviewer ignores the first digit and moves to the address at the remaining two-digit number (similarly for the single digit number if there is no address with the two digit number).

Selection of Households

Random Walk Technique

The Random Walk technique will be used for selecting households. Interviewers will be given addresses of a starting point for each secondary sampling point. In urban areas this will be a specific household address. In rural areas it will be a specific household or a landmark building such as the neighbourhood council building, post office, or local school. Different size settlements will require different directions for finding of starting point. In some cases the regional coordinator or supervisor will determine the starting point after having visited the settlement.

The interviewer will be directed to face the starting point. She then will choose the first street (house) to her right. Starting at this street (house), the interviewer will proceed in that direction and choose the second house as the first household for interviewing. If the second house is an apartment building (or has multiple dwelling units), she will choose the second dwelling unit in this building to start the interviewing.

After the interview, she will pass the next apartment or house and choose the fourth dwelling unit for the second interview. She will proceed in this pattern until the end of the street. At the end of the street, she will move to the next street on her right and continue the process until she completes the quota for that settlement.

Multi-dwelling residential units

Each multi-dwelling unit will be treated as one address. In one entrance the survey will be conducted on only one floor, and in only one apartment. Interviewers will be instructed that in each entrance they are to interview on the first floor in one building, middle floor in second, and top floor in third multi-storey building encountered.

Selection of Respondents

Last Birthday Technique

In this survey we will use the technique of random selection by Last Birthday.

At the door, upon first contact, the interviewer will inquire about the number of families or households residing in one apartment or house, and the number of members of each household. Interviewers then will carry out selection of the household to be included by selecting the household with fewer members, and at the next encounter choosing the household with more members. Interviewers will keep a record of the number of households/family units at each address.

At the door, the interviewer will ask to speak to the selected household member whose birthday is closest to the date she is interviewing. If that person is not at home, she will arrange to revisit that house if possible. Interviewers are directed to go on to the next unit if they cannot get the appropriate respondent after two attempts. This method ensures random selection of respondents.

Weighting

In the final analysis, weights are determined for each ethnic-majority area so that each of these areas will be represented proportionally by number of residents compared to the total population in that ethnic majority area. Also, for the two ethnic majority areas in the Federation B&H, weights are determined to reach proportional representation of those areas within the entity. Finally, weights are determined for the two entities to provide proportional representation at the B&H State level.

This sample design makes possible representativeness at ethnic majority areas level, two entity levels, and for B&H at state level. This applies for the sample of ethnic-majority respondents.

For the sample of ethnic-minority respondents within an area, a weight will be used that takes into account the distribution of members remaining of the two ethnic-minority peoples, and the distribution by regions.

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