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Institutional and Interpersonal Trust in Times of Crisis, the Case of Greece 2002-2011

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We analyze the levels of trust in Greece during a period in which the country entered a serious economic crisis. Signs of increasing mistrust in all societal institutions became evident and the nation witnessed extreme phenomena, such as violent demonstrations, the surfacing of extreme political ideas, parties with nationalistic and racist characteristics, and noncompliance towards rules, regulations, and taxes. However, not much is known about social trust, i.e. interpersonal trust between individuals during the crisis. We analyze data from the European Social Survey (ESS), Rounds 1, 2, 4 and 5 to test whether the crisis affected the levels of the various forms of trust among Greeks. In addition to social trust, we distinguish between trust in political institutions (like politicians and the national parliament) and impartial institutions (like the police and the legal system). We compare the Greek data with that from 10 other European countries. Unsurprisingly, the results show that the amount of trust people show towards political and impartial institutions decreased to record lows in Greece. However, and more surprisingly, interpersonal trust did not collapse. Actually, it even increased during the same time as institutional trust decreased notably. This suggests that during an economic crisis people do not lose their trust in other individuals. Rather, they appear to lean on each other even more than earlier when both political and impartial institutions fail. Moreoveer, our results indicate that the crisis has generated big divides in Greek society. The increase of interpersonal trust is manifested mostly among people not having difficulties with their income and health.

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Introduction

This paper analyses different socioeconomic conditions in Greece during the period 2002-2011, when the country entered a serious economic crisis. We focus on individual level effects of the crisis by investigating how the economic turmoil affected the levels of trust towards central societal institutions and towards other people. Our aim is to examine whether the economic crisis had a negative effect on trust.

Trust, defined either as institutional confidence towards the government and public institutions or as interpersonal social trust towards other people, forms the foundation of a well-functioning society. Trust in institutions is an important component of democratic societies as it is essential for the smooth operations of all the interactions between governmental institutions and citizens. Likewise, trust towards other fellow citizens is another fundamental asset of a vital society and an important ingredient for the social and political realm (e.g. Delhey & Newton 2002). In contrast, low or declining levels of trust are often associated with many distractions in society, like lower levels of happiness, wellbeing and health among individuals (Helliwell et al. 2014; Putnam 2000; Kawachi et al. 2007), possible reluctance to comply with legislation (Dalton 2004, Marien & Hooghe 2011, Levi 1998), and even higher potential of social unrest (Almond & Verba 1963).

It is logical to expect that a severe economic crisis violates trust. However, we emphasize the importance of distinguishing between institutional and political trust on the one hand, and social trust on the other. Earlier evidence (for an overview, see Torcal 2014) shows that economic crises and the accompanied rise of unemployment and deteriorating living conditions reduce people's institutional and political trust. This is easy to accept especially in cases like Greece, where several attempts to improve the economic situation have failed and brought nothing but disappointments to people. The recent years, especially in Greece, but also in Spain and Portugal have witnessed phenomena such as violent demonstrations, surfacing of extreme political ideas and parties, nationalistic and racist movements, and noncompliance towards rules, regulations, and taxes. The fact that increasing numbers of people have started to care less for the rules set by the government nor for the established social norms, probably indicates declining levels of trust. Not surprisingly, at the same time record low levels of political and institutional trust among their citizens are reported from Greece, Spain and Portugal (Roth et al. 2011, Exadaktylos & Zahariadis 2012; Torcal 2014; 2016).

However, much less is known about what has happened to social trust between individuals at the same time, and what could have been the driving force of the possible changes. Again, a very tempting way of reasoning would be that the increased unrest and even violent outbursts within demonstrations are likely to stimulate suspicion rather than trust towards other individuals. Nevertheless, in this paper, we show that unlike institutional trust, social trust towards other individuals is not necessarily damaged by an economic crisis. Our analysis of a representative time series survey data from Greece during the period of crisis shows that simultaneously with the declining levels of institutional trust, social trust has been slightly improving. We suggest that there may be two reasons for this. First, it is possible that social trust persists because people seek support from their fellow citizens, as the welfare state and other formal government protection obviously fails. Secondly, it may well be the case that the persisting or even slight increasing social trust is a product of accrued sentiments of togetherness as the majority of the nation faces the extreme adversities of the economic crisis.

The rest of this paper is structured as follows. We start by describing the background and main characteristics of the economic crisis and its social consequences in Greece in more detail. We continue with some descriptions and definitions of the phenomena of social trust and institutional trust that are our main focus. We then define our research questions and hypotheses more precisely and describe our empirical data and methods. We use data from the European Social Survey for Greece and other 10 European countries between 2002 and 2010/11. After that we present the results of our empirical analysis. In the concluding section we discuss the theoretical and policy implications of our empirical findings.

The Greek crisis

In this section, we analyse how social trust and institutional confidence have developed in Greece during the 10 year period, 2002 to 2011. Especially during the latter years of the period under scrutiny, Greece has experienced an unprecedented economic crisis, social unrest and political instability. Briefly, the crisis derived its origin from the ineffective fiscal policies during the previous decade. As the political system was unable to apply measures reversing the trend, it resulted in a nearly total collapse of the Greek economy in the aftermath of the 2008 downturn of the international banking system. Public debt and budget deficit skyrocketed, and suddenly the Greek government lost trust in the international bond markets which resulted in rapidly increasing interest rates. This in turn compelled the Greek government to ask for financial assistance from other Euro zone countries and the IMF. In return it was obliged to implement very strict fiscal consolidation policies. As a consequence, the level of unemployment rose rapidly simultaneously with wage and social security cuts as well as increased levels of taxation, all resulting in declining purchasing power among the majority of the population. (For an overview, see Arghyrou and Tsoukalas 2011.)

Probably the most important single factor that influenced the Greek economy in the early 2000s was the establishment of the common European currency, the euro in 2002. Like other smaller European countries, Greece adopted the euro so as to lock strategic alliances with stronger partners and to secure its geopolitical interests. The common currency was claimed to reduce substantially pricing and transactions costs thus boosting further economic growth and prosperity (Christopherson et al. 2015). Nonetheless, the euro took away some tools that governments previously had to stabilize their economies in times of economic downturns. The most notable of these was the inability to devalue one's national currency. Thus, periodic booms and busts in economic activity, at national level, did not converge at supranational level (De Grauwe 2013).

From 2002 to 2008, several Central and Northern European countries experienced high current account surpluses. Germany in particular, which had since 1997 applied a policy of internal devaluation by freezing wages, enjoyed persistent surpluses and higher GDP growth than the Eurozone averages (Simonazzi et al. 2013). On the other hand, Greece and other countries in the Southern Europe were faced with huge deficits, which were financed by credit coming mostly from the surplus economies. As long as external economic shocks were relatively weak, the deficits continued to be refinanced by rolling over sovereign debt in the bond markets and with relatively low interest rates.

In 2008, in the United States, a financial crisis erupted due to a previous overabundance of investments with mortgage-related securities as collateral. The crisis in the US together with the exposure of the banking sector to sovereign debt led to an increase of interest rates in the weak Southern European economies, which suddenly could not refinance their deficits. So, first the Greek government, and then those of Spain, Portugal and Ireland had no choice but to ask for financial assistance from the other Eurozone countries.

The prerequisites that were imposed by the lenders for such assistance were very harsh. Public sector expenditures were curtailed drastically. Also, increases of direct and indirect taxes were imposed in the hope that the public deficit would be reduced and lower costs would make firms more competitive thus kick start the Greek economy again. Unfortunately, the fiscal consolidation measures proved to be inefficient to turn the economy on the right track. On the contrary to what was envisioned, domestic demand was reduced, deposits in banks were withdrawn, many firms closed down, unemployment rose even higher, and political turmoil set in. The effects of the austerity measures were felt mostly in the wellbeing of Greeks in general, but especially among the most vulnerable groups of the nation. (Karanikolos et al. 2013).

The Greek welfare state has traditionally been comparatively weak whereas the role of the family has been central as a source of support for people in need (see Sotiropoulos and Bourikos 2014; Matsaganis 2012). Greek social security benefits such as unemployment benefits have been among the lowest in Europe, include strict eligibility criteria and cover a more limited duration than the corresponding benefit schemes in many other European countries. As the austerity measures were introduced, even those small benefits were cut notably. As a result, the Greek welfare state was even worse equipped to meet the increasing demands caused by the collapse of the economy.

Usually, when the welfare state fails, people turn to informal help and support from their families and relatives. However, also the potential of the family to support its members declined due to the crisis. For example, cuts in pensions translates into less ability among the (grand)parents to support their unemployed (grand)children.

All in all, from the point of view of wellbeing alone, some social policy analysts concluded that the austerity measures as well as the deregulatory and pro-market policy reforms pursued by Greek governments culminated in an “anti-social policy”. According to Papadopoulos and Roumpakis (2012, p.2012) instead of alleviating the crisis, this “severely educed socio-economic security, traumatised social cohesion and democratic governance, and sunk the Greek economy into the deepest and most prolonged recession in recent memory with detrimental effects for the state's finances and Greek society more generally". Indeed, in addition to the multiplying unemployment and poverty rates, also the number of homeless people rose dramatically and social ills of various sorts like health related problems, divorces, violent crime and even suicide mortality increased notably (Rachiotis et al. 2015; Kentikelenis et al. 2014; Ifanti et al. 2013).

Social and institutional trust during an economic crisis

As noted above, it is very easy to expect that the economic, political and social turmoil damages individuals' trust in institutions as well as in other individuals. In Greece there were obvious signs of this. Demonstrations, violence, crime and disobedience can easily be interpreted a signs of declining trust. Nevertheless, in order to assess the effects of the crisis on trust, it is important to distinguish between different types of trust, namely social trust and institutional trust. Since the classic writings of social research (e.g. Marx, Durkheim, Simmel and many others) to present day studies, a wide consensus about the great importance of the both types of trust has prevailed (see Zmerli & Newton 2013 for an overview). In this section we first discuss these concepts and then formulate more explicit hypotheses about the possible effects of the economic crisis on these two types of trust.

As often noted, trust is an ambiguous scientific concept. The concept of social trust is often used to refer to the horizontal aspect of trust, whereas institutional trust could be described as vertical trust in institutions from which a citizen may have very limited amount of information (see Hardin 1999; Warren 1999). In addition to social trust and institutional trust, various forms of *particular trust* (or in-group trust), i.e. trust within close personal networks, family, and closest friends, are often identified (e.g. Hardin 2000; Uslaner 2008). However, this form of trust is not included in this account. Our conceptualization of trust points to a wider society and our focus is rather on the "bridging" than "bonding" type of social capital (Putnam 2000, 23).

Social trust, also known as interpersonal or generalized trust, expresses to what extent people have faith in other people, especially in those they do not personally know. In a general level, social trust can be defined as the "belief that others will not, at worst, knowingly or willingly do you harm, and will, at best, act in your interests" (Zmerli et al. 2007, 38). In other words, general social trust is the belief that most people can be trusted even if you do not know them personally and even if they are not like you socially (Uslaner 2001-2: 573). Thus, instead of plain gullibility, this belief is based on the fact that individuals believe they have a justified reason to do so (Yamagishi 2001).

Institutional trust, on the other hand, focuses on actors and institutions such as politicians, officials and organizations. Undoubtedly, as Warren (199, 3-4) notes, modern, complicated political systems rely very much on citizens' trust in governmental organization and bodies. However, multiple institutions exist trust in institutions may vary notably from institution to another, i.e. there are more than one dimensions in institutional trust (e.g. Rothstein & Stolle

2003, 193-195). In this analysis, we focus on two types of institutions by distinguishing between trust in impartial institutions like the police and the legal system and political institutions like the national parliament and politicians.

Although a lot is known about the origins of trust, several issues, especially about the origins and the possible causal order between different forms of trust, still remain rather vague. A widely shared view seems to be that the emergence of interpersonal trust requires that societal and political institutions provide a fair and efficient environment where trusting is rewarded and not exploited (Knack and Keefer 1997; Brehm and Rahn 1997; Rothstein and Stolle 2003)[2]. Therefore, the source of social trust could be found in the design of public institutions and governing policies (Hooghe and Stolle 2003, 3). The debate over the topic is often entangled with discussion about whether welfare state may "make" or "break" social trust (see Kumlin and Rothstein 2005). Some have even argued that excessive state intervention is detrimental to the creation of social trust, because social expenditures and generous social programs "crowd out" informal social networks and thus deteriorate citizens' ability to benefit from face-to-face "social capital" (Fukuyama, 2001, 18). However, more recent studies do not seem to support this hypothesis (Rothstein and Stolle 2003; Kumlin and Rothstein 2005; Oorschot and Arts 2005; Kääriäinen and Lehtonen 2006; Kouvo et al. 2012). The levels of all types of trust tend to be the highest in the most developed welfare states equipped with generous and universal social policies, whereas in the welfare states that are characteristically based on residual social policies, the levels of trust remain clearly lower. Although these studies suggest that the universalist type of the welfare state has generated social trust, so far very few studies have analysed whether the positive association between the welfare state and social trust applies to a situation where state institutions are deteriorating and social policies are being cut back.

To make the situation even more complicated, in addition to state institutions there are many other factors, such as equal income distribution, protestant tradition, the wealth of the nation and ethnic homogeneity (e.g. Brehm and Rahn 1997; Delhey and Newton 2003; 2005) that also seem to correlate strongly with the level of general social trust. Many of these mechanisms are produced by a long historical development, and there is no certainty which of these are the causes and which ones the effects (cf. Rothstein, 2008).[3]

Despite the prevailing lack of unanimous views about the causal order between the various forms of trust and the other associated factors, things are more clear regarding the effects of

[2] As far as evidence based on longitudinal and especially panel evidence is lacking, this issue remains unsolved, and it is not possible to finally judge whether the institution-centred approach (suggesting that government policies and political institutions create, channel and influence individuals' capacity to develop broad and out-reaching cooperative ties and to establish social trust) or the attitudinal approach (suggesting social trust helps to create well-functioning institutions), or both are more correct (about institution-centred and attitudinal approaches, see Rothstein & Stolle 2014).

[3] There is evidence from recent studies that, though welfare state institutions seem to strongly contribute to social trust there is also slowly changing cultural component determining the levels of social trust. For example the generalized trust of immigrants seems to be influenced both the culture of the country of origin and social conditions and institutions of the destination country (Dinesen 2011; Portes 2011).

economic crises on trust. Most of all, earlier studies indicate that financial crises have a negative impact on trust, especially on different institutions. Intuitively, this is easy to accept. In good times people trust political institutions that are seemingly able to generate economic growth and jobs as well as to improve social security and services. Similarly, a low or even negative growth rate, unemployment and cuts in public services and the welfare state are likely to stimulate distrust among people. For example, Roth (2009; see also Braun and Tausendpfun 2014) shows that trust in the central European institutions like European Commission, European Parliament and especially in European Central Bank fell to historically low levels among EU-citizens soon after the financial crisis of 2008. This happened especially in the wealthy European countries (Kuhn and Stoeckel 2014). Soon after the crisis, trust in national political institutions also started to decline, despite a short-term increase in the initial phase (Roth 2009). The decline was mostly pronounced in Greece, Spain, Ireland and Portugal, four periphery countries of Europe which were hit the hardest by the international financial turmoil (Roth et al. 2014).

Earlier research on the association between financial crises and generalized interpersonal trust is more limited. Again, however, it is intuitive to expect negative effects. Simply the fact that individual wellbeing is positively correlated with interpersonal trust suggests that, as economic crises decrease wellbeing, this also translates into declining social trust, whatever the causal relation. But there is also evidence suggesting that social trust is affected by one's own negative experiences and therefore it declines during a crisis (van der Cruijsen et al. 2016). However, there are also skeptics of this finding. For example, Uslaner (2010) suggests that whereas trust in public institutions may change rapidly during the crisis, social trust seems to be more stable, though not immune to long term malfunctioning of public institutions. Even more interestingly, Growiec and her colleagues (2012) show that in Iceland – also in conditions of an extreme economic crisis – the level of social trust increased. Anderson (2015) notes that in the post-socialist transition countries social trust increased during the economic crisis after having decreased during the transition period. Moreover, when coping with the crisis, the importance of trust is acknowledged in research. Helliwell, Huang and Wang (2013) found that communities and nations with higher levels of trust respond to sudden crises in a more efficient way.

As we have seen, there are obvious reasons to expect that economic crises decrease institutional trust but what happens to social trust is not as evident. Also, it is possible that the development of the two types of trust varies between different segments of the population. There is evidence that the levels of trust fluctuate according to social stratification hierarchies, age, health, gender and such personal characteristics as sociability, optimism, and other psychological personality traits. For example, Alesina and la Ferrara (2000) find that a recent history of traumatic experiences of all sorts correlates negatively with trust. In the Greek case, it would therefore seem plausible to expect that people who have experienced the severest economic misfortune on personal level, as well as people with health problems would have lost their trust in both institutions and other people. About the effects of education and income earlier findings suggest a positive association with trust (Alesina and la Ferrara 2000; Knack and Keefer 1997; Helliwell and Putnam 1999). Similarly, the effect of unemployment on trust may be expected to be negative (Oorschot et al. 2006). Concerning age and gender earlier findings have shown less consistent findings. Most analyses have found a positive impact of age on trust but also there is evidence of a non-linear relationship. About gender there is evidence that women trust less than men (Alesina and la Ferrara 2000). Concerning different personal characteristics, our data includes only measures of sociability and therefore, although regrettable, our data source does not allow to test the effects of many psychologically interesting personality traits. The effect of sociability can be expected to be positive on all types of trust.

Research questions, data and methods

Our goal in this paper is to find out how the financial crisis and the accompanied social deterioration have affected the levels of institutional and social trust in Greece. It is easy to expect that the severe social consequences of the economic crisis have had a negative effect on the levels of trust people show towards the central institutions of society, and may also have violated trust people have on each other. More specifically, our research question can be formulated as follows:

1) How has the Eurocrisis affected social and institutional trust in Greece and other European societies?
2) Are there differences in the development of levels of institutional trust and social trust between Greece and other European countries?
3) Which background factors account for the variance of trust? Are there differences in previously well-known individual level determinants of social trust before and after the eruption of Greek crisis?

As our empirical data we use the European Social Survey (ESS) data from Rounds 1-2 and 4-5, which cover the time period of 2002-2010/11 (European Social Survey 2002; 2004; 2008; 2010). In addition to Greece we also use data from 10 more EU countries (Belgium, Denmark, Finland, France, Germany, Netherlands, Norway, Sweden, Switzerland and United Kingdom) as a reference point. These countries were selected due to data availability; only these countries participated together with Greece in all the Rounds 1-2 and 4-5 of the ESS. The total size of our sample is 107968 out of which 9.759 persons are inhabitants of Greece. Although in most countries Round 5 of the ESS was fielded in 2010, in Greece the fieldwork was conducted between early May and July of 2011.[4]

Our data contains measures on both social and institutional trust. We use a slightly rephrased version of the widely used *Trust in People* scale that was first introduced in late 1960s (see Wrightsman 1991, 406) to capture social trust. The exact wordings of these items are: 1) “Generally speaking, would you say that most people can be trusted, or that you can’t be too careful?”, 2) “Do you think that most people would try to take advantage of you if they got the chance, or would they try to be fair?”, and 3) “Would you say that most of the time people try to be helpful or that they are mostly looking out for themselves?”. The answering options for all these questions range from 0 to 10

[4] More detailed information about the ESS is available at europeansocialsurvey.org

To measure institutional trust, we use two scales, one on trust in political institutions, like the national parliament and politicians, and the other on confidence on impartial institutions, like the legal system and the police. The exact wordings of these items are: "Please tell me on a score of 0-10 how much you personally trust each of the institutions I read out. 0 means you do not trust an institution at all, and 10 means you have complete trust … 1) country's parliament, 2) politicians, 3) country's legal system, and 4) the police".

As the independent variables we use gender, age and age squared, educational attainment, subjective general health, household economic situation, respondent's sociability, occupational class and labour market status, i.e. whether the respondent is employed, unemployed or outside the labour force. As explained above, prior research has shown that both social and institutional trust variates according to all these variables so controlling for them is necessary. Age is measured in years as a continuous variable. Moreover, as earlier studies suggest that the effect of age is non-linear, we also include age squared in our models to capture possible curvilinear effects. Similarly, the level of education is measured in years the respondent has spent in educations. Subjective health is measured in two categories (Good health = 1; Fair health or worse = 0). The economic situation of the household is also measured in two categories based on self-reporting (a good economic situation or coping = 1; having difficulties = 0). Sociability is based on respondents' report about how often they meet their friends. Again, this variable consists of two categories (more than once a month=1; less often = 0). Occupational class is based on Eriksson's and Goldthorpe's (1990) classification. However, since in our preliminary analyses we found that there are statistically significant differences only between the highest service class vs. all other classes, this variable was aggregated into just these two categories. Labour market status is a variable indicating whether the respondent was employed, unemployed or outside the labour force at the time of the interview.

Results

We begin our analysis descriptively by showing the country means of the dependent variables. We employ linear regression analysis with robust standard errors. To capture the change over time, we run models containing interactions between year of the ESS Round and the other independent variables.

To get a picture of the effect of the Eurocrisis on social trust, on institutional confidence and how it varied during the research period, we first report the means of the variables measuring these different types of trust. As a reference point, we compare the Greek means with the corresponding means of the aforementioned 10 EU countries (Figures 1 and 2). As expected, institutional trust has declined notably during the research period in Greece whereas in Central and Northern European countries it has remained practically at the same level. This applies both to impartial institutions like the police and the legal system (Figure 1) and to political institutions like the national parliament and politicians (Figure 2). Initially, in 2002, Greeks trusted their impartial institutions on average almost as equally as the other Europeans. However, by the end of the research period, the levels of both types of institutional confidence had fallen clearly below the EU10 averages. Undoubtedly, the continuous disappointment towards political institutions to deal with the crisis has made people less confident with them. Similarly, Greeks have started to lose confidence on the impartial institutions, as well. Obviously, it is justified to speak about a legitimation crisis of political institutions in Greece of 2011.

(Figures 1 and 2 about here)

Nonetheless, as we turn to social trust in Figures 3 and 4, the picture changes notably. We now compare the levels of social trust in Greece with the mean of the other ten EU countries. Consistently with prior findings (Sotiropoulos, Clarke & Huliaras, 2015; Jones et al. 2008) social trust is on a comparatively low level in Greece. However, the most striking finding is that during our period of scrutiny, social trust has not decreased, in the country. Rather, it has slightly increased. Although this increase is not large, it is statistically significant and it applies to all the variables we use for measuring social trust.

(Figures 3 and 4 about here)

The most plausible interpretation of the simultaneously declining institutional confidence and increasing social trust is that as the functioning of the formal institutions of society is disrupted, people start leaning on each other, and perhaps do so even more than previously. At the same time, people may also adopt more sentiments of togetherness and belongingness, as many people find most -- if not all -- others in a similar situation.

To gain a more detailed picture of the change in Greece, we turn to a regression analysis of the Greek data. Controlling for the background variables does not change the picture attained from the descriptive analysis. The two variables measuring trust in political institutions were combined into a single scale. The same was done with the two measures on trust impartial institutions and the three ones on social trust. The results of the regression analyses are depicted in Tables 1 and 2.

(Table 1 about here)

We start by estimating the main effects of the independent variables on the three scales. In Table 1 we first regressed trust in political institutions, trust in impartial institutions and social trust on the independent variables described above. Results remain the same as already shown in the descriptive analysis: Trust in both political and impartial institutions declines continuously from 2002 to 2011. Like in most prior studies, institutional trust in Greece correlates statistically significantly with labour market status, age, health and income, and to a lesser extent with education, gender and sociability. Especially the negative effects of subjective assessments of both health and wealth on both institutional and social trust are consistent with expectations and earlier findings (e.g. Alessina & La Ferrera 2000). Also as expected, those outside the labour force show more institutional trust than the unemployed. Similarly, the older age, being a female, sociability (frequency of meeting one’s friends), better health and income correlate positively with institutional trust. However, and somewhat surprisingly, the more educated groups seem to have less confidence towards the impartial institutions than those with a lower level of education.

The regression analysis on social trust as the dependent variable is shown in the last column of Table 1. Again, the picture formulated from the descriptive analysis remains the same after controlling for the independent variables. Social trust increased in Greece during the research period. In the beginning, from 2002 to 2004, there was no statistically significant change but thereafter there have been significant changes with a positive sign. The effects of the independent variables are very close to the effect they had on institutional trust. An exception is with education; it correlates positively with social trust whereas negatively with institutional trust.

(Table 2 about here)

To capture the changes over time in the effects of the independent variables on social trust, we estimated a series of regression models containing interaction effects between the year of the ESS Round and each independent variable. To avoid multicollinearity and clearly isolate the aforementioned effect, we included each interaction term separately in the model. In Table 2 we report the models in which the interaction effect came statistically significant. We find that the effects of three variables, namely subjective income, subjective health and social class, varied over time. According to the coefficients, those with a poor subjective income, i.e. people experiencing difficulties in coping financially, lost their trust in other people more often than individuals with a better personal economic situation. This corresponds to recent findings (e.g. van der Cruijsen et al. 2016). Exactly the same interaction effect can be observed for subjective health. Social trust declined more often among persons with health problems than those who experienced good health. Finally, in Table 2, we find a varying effect of social class. This suggests that social trust increased especially among the highest group of professionals. However, towards the end of the research period, this effect seems to weaken.

Conclusions

In this paper we set out to examine what kinds of repercussions a severe economic crisis and the accompanied social disarray might have on the levels of trust in society. Using Greece as our empirical case, we distinguished between interpersonal social trust and institutional trust. The analysis showed clear-cut results: whereas Greeks lost their trust in both political and impartial institutions, their levels of social trust even slightly improved. This main finding did not change after controlling for several individual level background variables. Consistently with prior findings, our results suggests that institutional and social trust are not only theoretically distinct components of trust but also social changes – such as those caused by the Greek economic turmoil -- are reflected differently in these two forms of trust. Although trust in institutions nearly collapses, people do not seem to lose their trust towards other people. This finding, although unexpected, gets some support from some earlier studies, too.

We also found evidence of increasing divides in levels of trust among the Greek population. The increase of social trust did not apply to everyone. Especially people experiencing problems either with their health or income were more likely to indicate less social trust than others in our analysis. This suggests that personal rather than general societal problems deteriorate social trust.

The decline in political trust is by no means a surprise. Especially during economically hard times, whenever politicians fail, political trust declines. In Greece, people have had a reason to become disappointed several times with the attempts of politicians of various persuasions to implement policies guiding the nation out of the crisis. Simultaneously with compliance packages and austerity measures, among others, people have experienced increasing levels of unemployment, homelessness, poverty, worsening social security and health care. In other words, they have witnessed an alleviation of measures previously designed to fight the increasing social problems. Thus it is not surprising that in such an environment, people have lost their faith not only in political but also in impartial institutions. The very same phenomenon has been reported from other the other two Southern European countries facing economic crises, Spain and Portugal (e.g. Torcal 2016).

However, our analysis shows also that in contrast to what many would expect, the social fabric of the nation has not fallen apart despite the economic crisis. Our findings suggest that people may even have started to lean on each other more than before. We suggest two reasons for this. First, as the welfare state and other government institutions have failed to fulfil their role, individuals have been seeking support from each other. Second, it is well possible that at the same time shared experiences of nearly overwhelming adversities may increase togetherness among individuals.

To a certain degree it is possible to claim that our results support the crowding out hypothesis, according to which government institutions disturb informal social networks and thus deteriorate citizens’ ability to form and benefit from personal contacts with other individuals. This is not what we argue. The question is hardly about increasing social trust due to the disappearance of the government institutions that suffocate the social fabric, originally suggested by the crowding out hypothesis. Instead, in the Greek case the slight increase of social trust may be considered as a part of a coping strategy of people with declining levels of wellbeing.

A limitation of the study is the relative short period it examines. As discussed at the beginning, due to the unavailability of the ESS data we were able to analyse information for Greece only up until 2011. Since then Greece has not participated in the ESS, which is regrettable because especially interesting data from these dramatic years will not be obtained. The financial social and political turmoil in the country however, is today in its seventh year and there does not seem to be any quick recovery ahead, and again, the promises of immediate improvement in the quality of life for millions of Greeks have not materialised. Rather, a rising cleavage between the current leftist-rightist government coalition and the previous social democrats and conservatives may be observed together with the persisting social disarray. What happens to the levels of different forms of trust among Greeks, remains to be seen when new data is again available. Nevertheless our analysis suggests that despite the extremely low levels of institutional trust, there is no categorical reason to expect a deterministic drop in the levels of social trust.

REFERENCES

Alesina, A. & La Ferrara, E. (2000). The determinants of trust. *National Bureau of Economic Research*. Working Paper 7621, http://www.nber.org/papers/w7621

Arghyrou, M.G. & Tsoukalas, J.D. (2011). The Greek debt crisis: Likely causes, mechanics and outcomes. *The World Economy*, DOI: 10.111/j.1467-9701.2011.01328.x

Almond, G. & Verba, S. (1963). *The civic culture*. Princeton, NJ: Princeton University Press.

Anderson, J.E. (2015). The economic crisis and its impact on trust in institutions in transition countries. Unpublished manuscript.

Braun, D. & Tausendpfund, M. (2014). The impact of the Euro crisis on citizens' support for the European Union. *Journal of European Integration* 36(3), 231-245.

Brehm, J. & Rahn, W. (1997). Individual-level evidence for the causes and consequences of social capital. *American Journal of Political Science* 41(3), 999-1023.

Christopherson, S., Clark G.L., Whiteman J. (2015). Introduction: the Euro crisis and the future of Europe. *Journal of Economic Geography* 15, 843–853.

Dalton, R. (2004). *Democratic challenges, democratic choices: The erosion of political support in advanced industrial democracies*. Oxford: Oxford University Press.

Delhey, J. & Newton, K. (2005) Predicting cross-national levels of social trust: Global pattern or Nordic exceptionalism? *European Sociological Review* 21(?), 311-327.

De Grauwe P. (2013). Design Failures in the Eurozone: Can they be fixed? *London School of Economics, 'Europe in Question' Discussion Paper Series.* LEQS Paper No. 57/2013.

Eriksson, R. & Goldthorpe, J (1990). *The constant flux. A study of mass mobility in industrial societies*. Oxford: Oxford University Press.

European Social Survey Round 1 Data (2002). Data file edition 6.4. NSD - Norwegian Centre for Research Data, Norway – Data Archive and distributor of ESS data for ESS ERIC.

European Social Survey Round 2 Data (2004). Data file edition 3.4. NSD - Norwegian Centre for Research Data, Norway – Data Archive and distributor of ESS data for ESS ERIC.

European Social Survey Round 4 Data (2008). Data file edition 4.3. NSD - Norwegian Centre for Research Data, Norway – Data Archive and distributor of ESS data for ESS ERIC.

European Social Survey Round 5 Data (2010). Data file edition 3.2. NSD - Norwegian Centre for Research Data, Norway – Data Archive and distributor of ESS data for ESS ERIC.

Exadaktylos, R. & Zahariadis, N. (2012). Policy Implementation and Political trust: Greece in the age of Austerity, *Hellenic Observatory Papers on Greece and Southern Europe*, No. 65 December 2012.

Fukuyama, F. (2001). Social capital, civil society and development. *Third World Quarterly* 22(1), 7-20.

Growiec, K., Vilhelmsdottir, S. & Cairns, D. (2012). Social capital and the financial crisis: the case of Iceland. *CIES e-Working Paper* No. 138/2012.

Harding, R. (1999). Do we want trust in government? In M.E. Warren (ed.): *Democracy and trust*. Cambridge: Cambridge University Press, 22-41.

Hardin, R. (2000). 'The Public Trust' in S. Pharr, and R. D. Putnam (eds.): *Disaffected Democracies: What's Troubling the Trilateral Countries?* Princeton: Princeton University Press.

Helliwell, J., Huang, H., & Wang, S. (2014). Social Capital and Well-Being in Times of Crisis. *Journal of Happiness Studies* 15(1): 145-162.

Helliwell, J. & Putnam, R. D. (1999). Education and Social Capital. *NBER Working Paper*, No. 7121.

Hooghe, M. & Stolle, D. (2003). Introduction: generating social capital. In M.Hooghe & D. Stolle (eds.): *Generating social capital. Civil society and institutions in comparative perspective*. New York : Palgrave MacMillan.

Ifanti, A.A., Argyriou, A.A., Dalofonou, F.H. & Kalofonos, H. (2013). Financial crisis and austerity measures in Greece: Their impact on health promotion policies and public health care. *Health Policy* 113 (1-2), 8-12. DOI: http//dx.doi.org/10.1016/j.healthpol.2013.05.017.

Jones, N., Chrisovaladis, M., Iosifides, T. & Sophoulis, C.M. (2008). Social capital in Greece: Measurement and comparative perspectives. *South European Society & Politics* 13(2), 175-193.

Karanikolos, M., Mladovsky, P., Cylus, J., Thomson, S., Basdu, S., Stuckler, D., Mackenbach, J.P. & McKee, M. (2013). Financial crisis, austerity, and health in Europe. *The Lancet* 381,1323–1331.

Kawachi, I., Subramanian, S. V., & Kim, D. (Eds.). (2007). *Social capital and health*. New York: Springer.

Kentikelenis, A., Karanikolos, M., Reeves, A., McKee M. & Stuckler, D. (2014). Greece's health crisis: from austerity to denialism. *The Lancet* 383(9918), 748-753.

Knack, S. & Keefer, P. (1997) Does social capital have an economic payoff? *Quarterly Journal of Economics* 112, 1251-73.

Kumlin, S. & Rothstein, B. (2005). Making and Breaking Social Capital. The Impact of Welfare-State Institutions. *Comparative Political Studies* 38(4), 339-365.

Kuhn, T. & Stoeckel, F. (2014). When European integration becomes costly: The euro crisis and public support for European economic governance. *Journal of European Public Policy* 21(4), 624-641. DOI: 10.1080/13501763.2013.867892

Levi, M. (1998). "A State of Trust". In Braithwaite, V. and Levi, M. (eds.). *Trust and Governance*. Russel Sage Foundation. New York. pp. 77-101.

Matsaganis, M. (2012). Social policy in hard times: The case of Greece. *Critical Social Policy* 32(3), 406-421.

Marien, S. & Hoogle, M. (2011). Does political trust matter? An empirical investigation into the relation between political trust and support for law compliance. *European Journal of Political Research*, 50, 267–291.

Papadopoulos, T. & Roumpakis, A., (2012). The Greek welfare state in the age of austerity: anti-social policy and the politico-economic crisis. In: Kilkey, M., Ramia, G. and Farnsworth, K., (eds.), *Social Policy Review 24: Analysis and debate in social policy*, 2012. Bristol, U. K.: Policy Press, pp. 205-230.

Putnam, R.D. (2000). *Bowling alone: The collapse and revival of American community*. New York: Simon & Schuster

Roth, F. (2009). The effect of the financial crisis on systemic trust. *Intereconomics* 44(4), 203-208. DOI: 10.1007/s10272-009-0296-9.

Roth, F., Nowak-Lehmann, F. & Otter, T. (2011). "Has the Financial crisis shattered citizens' trust in national and European governmental institutions?" *Centre for European Policy studies (CEPS) Working Document*, No. 343, June 2011 (update).

Rothstein, B. (2008). Is the universal welfare state a cause or an effect of social capital? *QoG Working Paper Series* 2008:16.

Rothstein, B. & Stolle, D. (2003). Social capital, impartiality and the welfare state: An institutional approach. In M.Hooghe & D. Stolle (eds.): *Generating social capital. Civil society and institutions in comparative perspective*. New York : Palgrave MacMillan, 191-209.

Simonazzi, A., Ginzburg, A. & Nocella, G. (2013). Economic relations between Germany and southern Europe. *Cambridge Journal of Economics* 37,653–675.

Sotiropoulos, D.A. & Bourikos, D. (2014). Economic crisis, social solidarity and the voluntary sector in Greece. *Journal of Power, Politics & Governance* 2(2), 33-53.

Sotiropoulos, D., Clarke, J. & Huliaras, A. (2015). *Austerity and the Third Sector in Greece: Civil Society at the European Frontline*. Aldershot: Ashgate.

Torcal, M. (2014) The decline of political trust in Spain and Portugal: Economic performance or political responsiveness? *American Behavioral Scientist* 58 (12), 1542-1567.

Torcal, M. (2016) Political trust in Western and Southern Europe.

Uslaner, E. M. (2001–2002) 'Producing and Consuming Trust', *Political Science Quarterly,* 115: 569–590.

Uslaner, R. (2008). 'Trust as a moral value, in Castiglione, D., Van Deth, J. & G. Wolleb (eds.): *Handbook of Social Capital*. Oxford: Oxford University Press, 101-121.

Uslaner, E.M. (2010) Trust and the Economic Crisis of 2008. *Corporate Reputation Review* 13(2), 110-123.

van der Cruijsen, C., de Haan, J. & Jansen, D-J. (2016) Trust and financial crises experiences. *Social Indicators Research* 127, 577-600.

van Oorschot, W. & Arts, W. (2005). The social capital of European welfare states: the crowding out hypothesis revisited. *Journal of European Social Policy* 15 (1), 5-25.

Warren, M.E. (199). Introduction. In M.E. Warren (ed.): *Democracy and trust*. Cambridge: Cambridge University Press, 1-21.

Wrightsman, L.S. (1991) Interpersonal trust and attitudes toward human nature. In J.P. Robinson, P.R. Shaver & L.S. Wrightsman (eds.): *Measures of Personality and Social Psychological Attitudes, Vol.1*. San Diego: Academic Press, 373-412.

Yamagishi, Toshio. (2001). Trust as a form of social intelligence. In K.S. Cook (ed.): *Trust in Society, Vol. 2.* New York: Russell Sage Foundation, 121-47.

Zmerli, Sonja, Kenneth Newton & José Ramón Montero (2007). Trust in people, confidence in political insitutions, and satisfaction with democracy. In J.W. Van Deth, J. Ramón Montero & A. Westholm (eds.): *Citizenship and Involvement in European Democracies: A Comparative Analysis*. Abingdon: Routledge, 35-65.

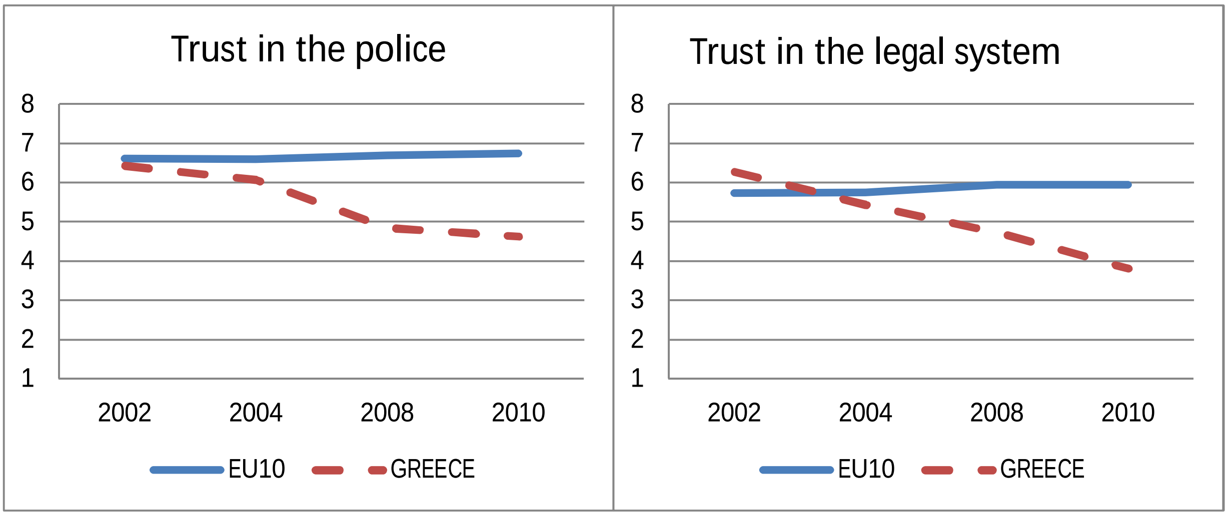

Figure 1. Trust in impartial institutions (the police and the legal system) in Greece and in ten EU countries (Belgium, Switzerland, Germany, Denmark, Finland, France, UK, Netherlands, Norway and Sweden). Means of the 0-10 scale.

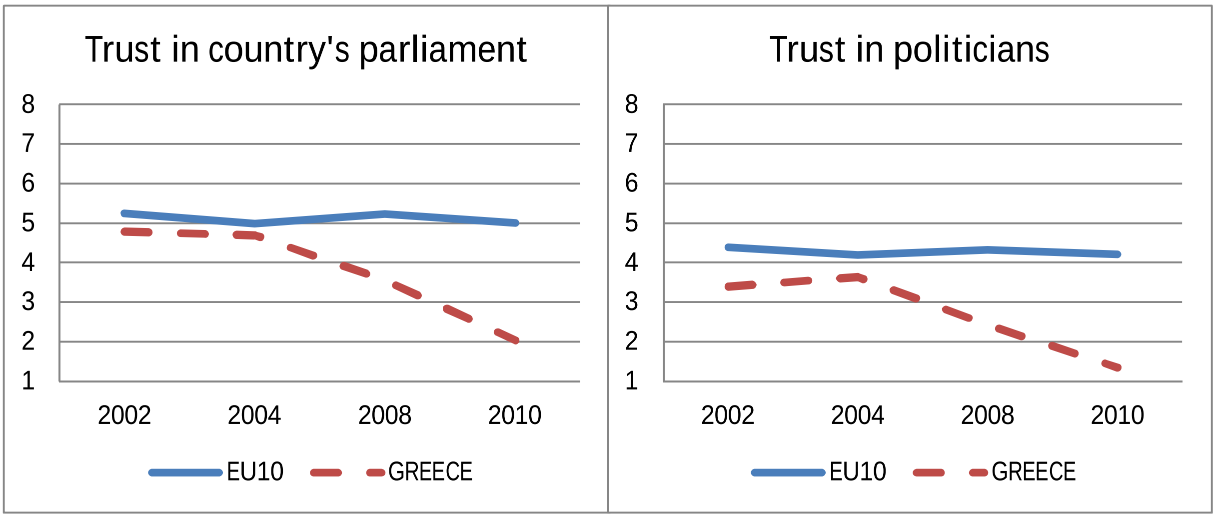

Figure 2. Trust in political institutions (the country's parliament and politicians) in Greece and in ten EU countries (Belgium, Switzerland, Germany, Denmark, Finland, France, UK, Netherlands, Norway and Sweden). Means of the 0-10 scale.

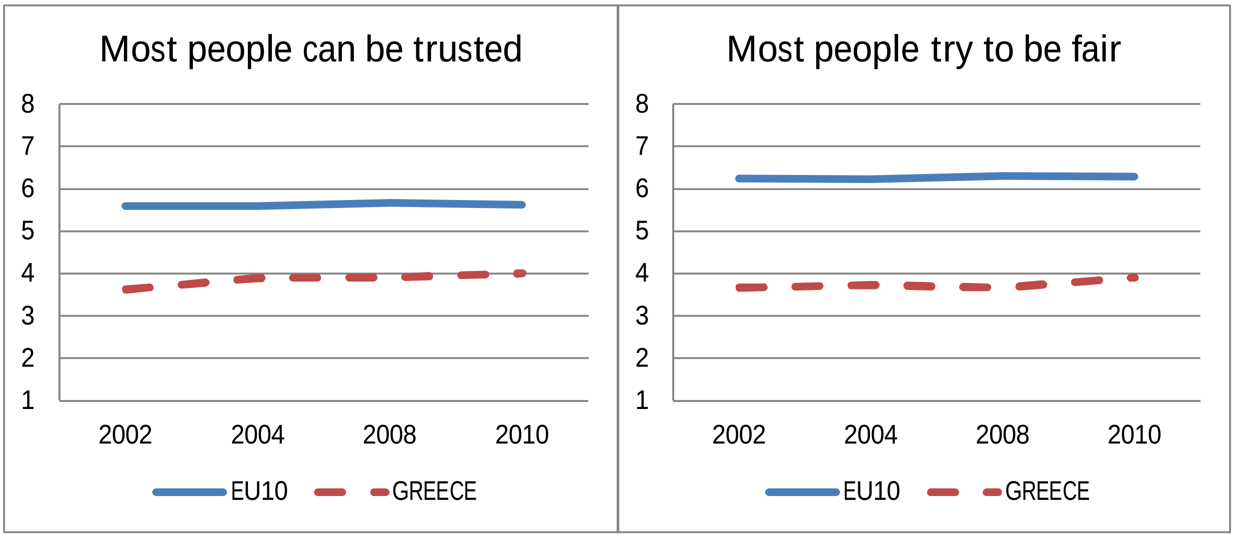

Figure 3. Social trust ("Most people can be trusted or you can't be too careful" and "Most people try to take advantage of you or try to be fair") in Greece and in ten EU countries (Belgium, Switzerland, Germany, Denmark, Finland, France, UK, Netherlands, Norway and Sweden). Means of the 0-10 scale.

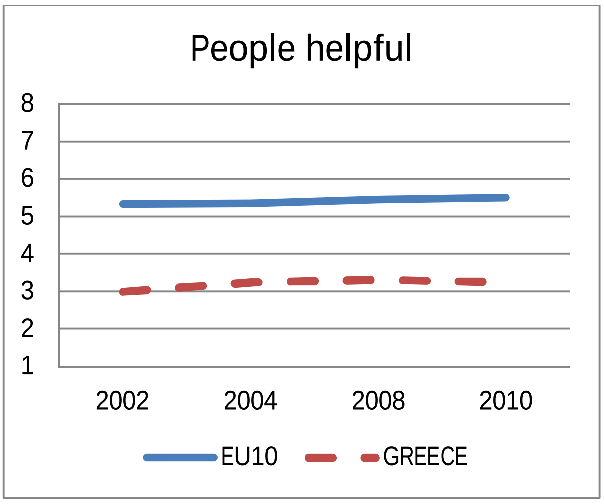

Figure 4. Social trust ("Most of the time people are helpful or mostly looking out for themselves") in Greece and ten EU countries (Belgium, Switzerland, Germany, Denmark, Finland, France, UK, Netherlands, Norway and Sweden). Means of the 0-10 scale.

Table 1. Determinants of trust in political institutions, trust in impartial institutions and social trust in Greece, 2002-2011. Linear (OLS) Regression analyses with robust errors.[1]

	Trust in political institutions		Trust in impartial institutions		Social trust	
Service Class I	0.142		0.122		0.199	*
	(0.111)		(0.124)		(0.099)	
Outside labour force	0.151	*	0.246	**	0.092	
	(0.065)		(0.0730)		(0.057)	
Unemployed	-0.107		-0.102		-0.088	
	(0.093)		(0.119)		(0.085)	
Education	-0.001		-0.035	***	0.050	***
	(0.007)		(0.008)		(0.007)	
Age	0.014	***	0.0159	***	0.001	
	(0.002)		(0.002)		(0.002)	
Age sqr (x100)	0.020	*	0.023	*	0.038	***
	(0.008)		(0. 009)		(0.007)	
female	0.044		0.155	**	0.056	
	(0.052)		(.060)		(0.047)	
Subjective health, poor	-0.434	***	-0.293	***	-0.263	***
	(0.069)		.0791		(0.060)	
Subjective income, poor	-0.256	***	-0.269	***	-0.360	***
	(0.052)		(0.059)		(0.047)	
Sociability	0.163	**	0.107		0.245	***
	(0.053)		(0.061)		(0.047)	
Year 2004	0.008		-0.636	***	0.117	
	(0.074)		(0.077)		(0.061)	
Year 2008	-1.060	***	-1.346	***	0.132	*
	(0.076)		(0.082)		(0.064)	
Year 2011	-2.392	***	-2.000	***	0.270	***
	(0.069)		(0.079)		(0.064)	
Constant	4.092	***	6.117	***	3.437	***
	(0.085)		(0.091)		((0.071)	
N	9401		9501		9565	
R^2	0.207		0.128		0.047	
F	179.67		91.58		31.43	

[1] Reference categories for categorical independent variables are other than service class, employed, male, reasonable or good subjective health, reasonable or good subjective income, meets friends, relatives or colleagues less than once a week. Education, age and age squared are mean centered.

Table 2. Determinants of social trust in Greece, 2002-2011. Linear (OLS) regression analyses with robust errors (M(1): Main effects + subjective income x year; M(2): Main effects + subjective health x year; M(3): Main effects + service class I x year.[1]

	M(1)		M(2)		M(3)	
Service Class I	-0.196	*	-0.192		-0.392	*
	(0.099)		(0.100)		(0.167)	
Outside labour force	0.096		0.092		0.091	
	(0.057)		(0.057)		(0.057)	
Unemployed	-0.079		-0.087		-0.090	
	(0.086)		(0.085)		(0.086)	
Education	0.051	***	0.050	***	0.050	***
	(0.007)		(0.007)		(0.007)	
Age	0.000		0.000		0.000	
	(0.001)		(0.000)		(0.001)	
Age sqr (x100)	0.038	***	0.037	***	0.038	***
	(0.007)		(0.007)		(0.007)	
female	0.054		0.052		0.057	
	(0.047)		(0.047)		(0.047)	
Subjective health, poor	-0.266	***	-0.059		-0.264	***
	(0.060)		(0.105)		(0.060)	
Subjective income, poor	-0.180	*	-0.363	***	-0.360	***
	(0.089)		(0.047)		(0.047)	
Sociability	0.243	***	0.248	***	0.243	***
	(0.047)		(0.047)		(0.047)	
Year 2004	0.227	**	0.119		-0.036	
	(0.085)		(0.071)		(0.232)	
Year 2008	0.241	**	0.230	**	-0.429	
	(0.091)		(0.073)		(0.262)	
Year 2011	0.437	***	0.374	***	0.169	
	(0.092)		(0.069)		(0.235)	
Sub. income x year 2004	-0.216		-		-	
	(0.122)					
Sub. income x year 2008	-0.214)		-		-	
	(0.127)					
Sub. income x year 2011	-0.297	*	-		-	
	(0.122)					

(*Continued on the next page*)

Table 2. (*Continued*).

	M(1)		M(2)		M(3)	
Sub. health x year 2004	-		0.006		-	
			(0.140)			
Sub. health x year 2008	-		-0.488	**	-	
			(0.015)			
Sub. health x year 2011	-		-0.466	**	-	
			(0.139)			
Service class I x year 2004	-		-		0.161	
					(0.240)	
Service class I x year 2008	-		-		0.590	*
					(0.270)	
Service class I x year 2011	-		-		0.107	
					(0.243)	
Constant	3.542	***	3.579	***	3.820	***
	(0.116)		(0.113)		(0.166)	
N	9565		9565		9565	
R^2	0.048		0.050		0.048	
F	26.24		27.51		25.95	

[1] Reference categories for categorical independent variables are other than service class, employed, male, reasonable or good subjective health, reasonable or good subjective income, meets friends, relatives or colleagues less than once a week. Education, age and age squared are mean centered.