## Master Thesis:

# The Impact of a Financial Crisis of Happiness

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#### Abstract

The purpose of this research is to find a relationship between happiness and financial crises. To do so, it examines the effects of 2008 crisis as captured by GDP growth, change in unemployment rate and change in inflation rates on and life satisfaction and searches for a negative relationship between them. It uses ordered probit specifications with a categorical dependent variable and explores changes in macroeconomic indicators which are attributed to the crisis. This research also argues that the high degree of trust in institutions in crisis periods can be an important determinant of reporting high life satisfaction. The argument is that economic consequences in real life will affect less life satisfaction since the trust in national governments is considerable. Political environment is expected to influence stability and as a consequence to rise insecurity during crisis episodes. During the crisis, the trust in institutions is an important element for a nation's actual and psychological wellbeing. Results show that, under some specifications GDP growth has a negative impact on life satisfaction. The change in unemployment rate has a significant influence only when the trust in national government in low. The change in inflation rate does not have a significant effect on the dependent variable.

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#### **1. Introduction**

Human happiness has a relative meaning. For centuries, philosophers, psychologists and social scientists are constantly seeking ways to define what makes an individual truly happy. On the one hand, one can argue that happiness cannot be a subject of study because happiness reports can constantly change and give biased results as they are subject to living conditions, emotional conditions (Hermalin & Isen, 2000), self-confidence (Benabou & Tirole, 2000), or cultural differences (Blanchflower & Oswald 2000). Moreover, happiness cannot be easily reflected in behavior. On the other hand, research has shown that happiness or subjective wellbeing (Di Tella et al., 2001; Layard, 2005).<sup>1</sup> Personal characteristics and economic factors and their relationship with happiness are the most usual to be investigated (Dolan, Peasgood, & White 2007; Frey & Stutzer 2002). But given the unobserved nature of human happiness by default, one should be careful on how to interpret the results before coming to a conclusion.

The study of subjective wellbeing is relatively new in economics. In traditional economic theory, utility is measured by observed choices an individual makes under the rationality assumption (Frank, 2002). This view heavily relies on measuring utility in terms of consumption. An individual makes rational choices between varieties of goods seeking the optimal one to maximize his own utility levels. In contrast to psychology or political science, the use of subjective measures of wellbeing or happiness to measure utility has been only a recent development in economics. As a result, economic literature on happiness is limited but growing. Starting from Easterlin (1974) who identified the paradox that average happiness is not getting higher as a country gets wealthier, research was triggered to answer and solve this mystery. Using surveys and single or multiple questions of how individuals rate their overall quality of life or

<sup>&</sup>lt;sup>1</sup>Various studies have discussed those conflicting views (Diener, 2000; Dolan, Peasgood & White 2007; Easterlin, 2003; Frey and Stutzer, 2002; Layard, 2005).

how satisfied they are with life in general, research on what affects happiness has made quite big steps.

As existing literature already suggests, demographic characteristics such as age and gender or personal characteristics such as occupation and marital status are not the only factors correlated with wellbeing (Dolan et al., 2007). Di Tella et al (2001) found that higher levels of inflation and higher unemployment rates in European countries and USA are associated with lower levels of happiness. Graham & Pettinato (2002) also found robust results to support that unemployment and inflation rates have a negative effect on subjective well-being<sup>2</sup>. But several questions did rise again. Does happiness only depends on wealth? Does relative income instead of absolute better reflects its connection to wellbeing? Why are there differences in reported levels of wellbeing across different countries? An extensive literature review will be provided to describe and explain the issues raised, as well as different approaches used to address all of the above questions.

This study goes beyond measurement and conceptual issues and looks deeply into the factors which are correlated with wellbeing. The main objective is to observe the impact of economic factors related to happiness and specifically the impact of a financial crisis.

No matter how difficult it is to determine what eventually makes a human being happy research in multiple fields is still expecting new findings. The view that money related factors are exclusively driving individual wellbeing does not stand when it comes to compare happiness rates across countries. Accordingly, empirical studies (Frey & Stutzer, 2002) have distinguished three broad categories of factors related to happiness into the following three: *demographic and personality factors, economic factors and political factors*<sup>3</sup>

<sup>&</sup>lt;sup>2</sup>They found evidence to support this relationship using samples from Latin America and Russia. Graham & Pettinato, (2002); Graham & Pettinato (2001).

<sup>&</sup>lt;sup>3</sup> Frey & Stutzer (2002)

This thesis will focus on the second set of economic related factors but will not ignore the impact of political factors and personal characteristics. Political environment is expected to influence stability and as a consequence to rise insecurity during crisis episodes. During the crisis, the trust in institutions is an important element for a nation's actual and psychological wellbeing.

Still, a small part of the existing empirical work addresses the impact of changes in macroeconomic indicators on wellbeing. Even less is the quantitative analysis which attributes such changes to a financial crisis and eventually links them to happiness or life satisfaction. As the latter is be examined on this paper, its contribution to the literature is the beginning of investigating a possibly new "factor" negatively correlated with happiness; *a financial crisis*.

The paper focuses on the ongoing European crisis. The worldwide crisis of 2008 had a dramatic impact across Europe and all western countries were largely affected one way or another. It is though worth to notice that not all the countries were equally affected. It seems that southern European countries Greece, Spain and Portugal faced larger consequences (Eurofound, 2012). The impact of a crisis will be addressed by testing the effects of changes in GDP, unemployment and inflation. Moreover, the influence of political situation is also controlled. The expectations are that mainly during recession periods individuals feel security when trust in institutions is high. The main research question is the following:

### "Does a financial crisis, as observed in the extreme changes of macroeconomic indicators, negatively affects reported levels of wellbeing?"

As already mentioned above, economic research on happiness is limited. A basic obstacle was that long term data on happiness were not available for most of the countries or through time. This is not the case for Europe. Surveys conducted under the European Commission concerning happiness and life satisfaction of European population resulted into the creation of a database

containing information for the countries of the European Community for the period 1975-2012. The creation of this database gives now opportunities of exploring new paths and especially the effects of recent developments and made this thesis feasible. Data on happiness and life satisfaction are readily available which gives space for new research on the field of economics of happiness.

Apart from the ability to use and explore this new database, there is little empirical work to evidence how individuals' happiness was affected by the ongoing crisis in Europe. Gudmundsdottir (2013) gives evidence on the effect of the financial crisis in Iceland. Results show, that even though trust in banks decreased after the financial downturn the variables could not explain that the economic shock itself influenced happiness. It is also suggested that there might be an adaptation process in progress, or that other factors but economic crisis define wellbeing better.

High inflation rates, high unemployment rates and lower GDP in a number of European countries, do show or signal that consequences of the 2008 crisis are still in effect. There is also, other relevant work which addresses the effect of the changes in macroeconomic indicators on wellbeing. Di Tella et al. (2001), show that high inflation, high unemployment rates and wellbeing reports change to opposite directions.

This thesis has also policy implications. The macroeconomic indicators investigated (inflation, unemployment,) do not only have costs for real economy as usually perceived by policy makers. It is implied that they also have a relative impact in more social aspects of life. European strategy for 2020, has already set goals not only in economic terms but also for education, employment and living standards. In 2009, European Commission published "GDP and Beyond-Measuring progress in a changing World" which is an initiative to monitor social and environmental progress.

The calculated differences in happiness scores give insights in how real economic indicators do not completely reflect welfare, and point towards the attention of policy makers to nonmaterial values (Stutzer &, Frey, 2010). As

Manuel Baroso, said during the introduction of European 2020 Strategy: "*The last two years have left millions unemployed. It has brought us a burden of debt that will last for many years. It has brought new pressures on our social cohesion*".

It is now obvious that the crisis had not only economic but also political dimensions. Political decisions on economic related matters which affect welfare have an impact of wellbeing. Previous research has highlighted the importance of wellbeing and welfare while their results are adopted by policy makers (Diener, 2009; Diener & Seligman, 2004; Dolan & White, 2007). Especially in European Union, not only economic results but a wider set of social variables are utilized and drive the undertaken decisions. As European institutions have set welfare as a priority it would be useful to pay more attention not only to the implementation of austerity measures to face a crisis but on the maximization of human contentment within the European Union. Another useful implication for policy makers is the ability to use studies in economics of happiness to evaluate the results of reforms or austerity measures during crises periods.

The remainder of this thesis is organized as follows. Section 2 provides a review of economic factors related to happiness or subjective wellbeing and explain how these factors are directly connected to a crisis. Section 3 provides a short description of what happened to Europe during the crises that went through and especially to the macroeconomic indicators which were affected as policy measures changed during the crisis. Section 4 shows results obtained after an empirical analysis. Lastly, results are discussed and possible limitations are addressed.

### 2. Theoretical Framework

#### 2.1) Defining and Measuring Happiness

Over the last decades, economists have started to measure utility in terms of happiness. Until then, utility was captured by the choices an individual makes. In classic economic theory the function of utility consists of the observed choices a person makes, taking into account the preference of these choices among others (Frank, 2002; Varian, 2006). It is therefore assumed that each individual maximizes its own utility function by choosing the "best" option among all the alternative ones.

Moreover, the neoclassical point of view traditionally relates income to happiness by developing the argument that higher income equals to more goods and therefore higher levels of happiness. A restrictive assumption that is implied in classical economic theory is that people are fully informed for all of their options and are rational when making a choice. But in real life, individual choices do not directly reflect the rationality assumption (Simon, 1978; Conlisk, 1996).

A new development towards the measurement of individual utility comes with the newly introduced study of happiness or subjective measure of wellbeing in economics. Economists started to investigate happiness instead of preferences as an alternative measure, although they traditionally shied away of the subjective measures used by psychologists (Dolan & White, 2007). The initial argument was that these scores cannot reflect true utility as they carry little information and therefore self report measures cannot be explored. A method used to overcome such problems is to test whether reported happiness is correlated with other measures typically connected to utility such as unemployment (Di Tella & MacCulloch, 2006). Another argument states that individuals cannot rate their overall happiness as they are not fully aware of their actual situation. As Veenhoven (2008) suggests, it is observed that most people actually realize their own happiness. Despite, the obstacles in measuring happiness it has been now accepted that self report measures of happiness reflect utility.

Examining happiness instead of observing behavior offers a much broader field of research. Firstly, it allows to directly asking people on how they perceive happiness, how it is achieved and what drives it instead of assuming that their happiness is directly reflected in consumption choices. Secondly, it allows measuring not only levels of happiness themselves but levels of *experienced happiness* and *expected happiness*. Experienced utility, in contrast to decision utility can be easier found in self report measures of wellbeing, namely surveys (Rabin 1998, Di Tella et al., 2003). Despite the concerns neoclassical economists had about the validity of subjective wellbeing measures it turned out that they effectively serve their purpose. Indicators of subjective wellbeing are usually based on surveys and report the overall assessment/contentment with life (Graham, 2005).

One of the first to investigate the topic, Easterlin (1974), found that average happiness of a population does not increase as they get wealthier. Although he found that wealthier people have the tendency to be happier, the same does not stand when measuring it across different countries or time. Easterlin (1974) paradox, raised questions which triggered research towards the explanation of how wealth cannot be followed by higher levels of happiness. Easterlin (1995) suggests that wealthier people state happier compared to those with lower income can be explained. When relative income differences are taken into account, wealthier people report happier compared to the poorer individuals in a society. It is implied that individuals value their own personal income relative to the general income level in a society. In a recent example, Clark (2003) showed that happiness decreases when one is unemployed, but this decrease is smaller for higher rates of unemployment. Again, level of unemployment is important for someone to evaluate his own situation. This is another case of happiness evaluation in relative terms. The previous example gives support to the view that an individual appreciates more its own employment when unemployment rates are higher. For another time, it is more accurate to investigate various factors in relative terms rather

than absolute. Therefore, one should be cautious when investigating "changes" that could affect happiness.

In this research rapid and fast changes to unemployment, inflation and output (GDP) are examined and the idea that individuals adopt in changes over time is not applicable mainly because of the time needed for this adaptation.

The results of other researchers who further investigated Easterlin paradox attribute the differences in reported levels of happiness to various explanations but at the same time bring into the light some conceptual problems.

The first refers to the notion that people exaggerate or overstate their happiness (Bertrand & Mullainathan, 2001). This is a source of potential biased results as self-report measures of wellbeing or satisfaction are subject to them (Di Tella & MacCulloch, 2006). Exaggeration cannot be identified and captured in a regression leading to a typical case of unobserved.

The second conceptual issue is related to comparability of happiness. It refers to the notion that self-report happiness cannot be a comparable measure across individuals because of cultural differences mainly to what can be perceived as happiness. Therefore, it is necessary to assume that individual answers are homogeneous when it comes to the question of what is happiness perceived as. Di Tella and MacCulloch (2006) explain that by examining a large sample of the population this issue is overcome. They explain that when the comparison is focused not merely to persons but between large groups of population, then the probability of having systematic differences becomes quite smaller.

Another issue is related to the notion that people redefine happiness both across time and with the changes in income.

The idea that people adapt to various situations and value their own happiness depending on how circumstances and environment change has been also well documented in previous work. Income aspirations have been one of the most common factors used to examine adaptability. Di Tella et al. (2003) find that reported happiness is adjusted as income increases. The

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results as those of numerous other studies on the effect of income aspirations, give the insight that as long as the basic needs are covered higher income brings higher income aspirations. On the other hand, other studies have shown that adaptation is not complete. (Lucas et al., 2005) showed that unemployed individuals never report the same levels of life satisfactions even when they are employed.

Happiness or subjective wellbeing can be defined as satisfaction with life in general or as Veenhoven (2008) describes it is "the *degree to which an individual judges the overall quality of his/her own life-as-a-whole favorably*". As already mentioned above, indicators of subjective wellbeing are usually based on surveys and report the overall assessment/contentment with life (Graham, 2005).

Veenhoven (2009) describes the different components of happiness namely the "affective" and "cognitive". The first is related to how one generally feels in his life and the second addresses if one's life-as-it-is meets the standards of how the life should be.

Therefore *hedonic level of affect* better reflects the feelings one has about his life and as Veenhoven (2010) suggests the determinants of this type of happiness are the same across the world. *Contentment* on the other hand deals with the appreciation of one's life compared to the standard cultural and societal standards. Therefore it is more likely that it can produce larger difference across countries since it is subject to the living and life standards.

Happiness is measured using questions with single or multiple items. For example overall happiness is measured by asking the question *«Taking all together, how satisfied or dissatisfied are you with your life as a whole these days"*.Contentment with specific parts of life or with life as a whole is measured using various questions which address how satisfied one is with his life. Such questions include "*All things considered, how satisfied or dissatisfied are you with your life as a whole these days?*" 'Dissatisfied' and 'Satisfied' or *«How satisfied are you with your life as a whole these days?*" Seven point response scale, labeled at the ends with: *'Completely satisfied' and*  'Completely dissatisfied'. The paper focuses on overall happiness in terms of life satisfaction. A five scale measure of life satisfaction is utilized. The question that is asked to the participants is "*On the whole, are you satisfied with the life you lead?*". Individuals choose one of the following four categories: "Very satisfied", "Fairly satisfied", and " Not very satisfied" "Not at all satisfied".

#### 2.2) Factors correlated with happiness

In general, three broad types of characteristics are found to be correlated with happiness or life satisfaction (Frey and Stutzer, 2002). The first category includes demographic factors and personality characteristics. The second group is associated with *economic factors* and the last category involves *political factors* (Frey and Stutzer, 2002).

Dolan et al. (2007) describes and divides the same set of happiness components into seven topics. Reported levels of wellbeing have being found to be correlated with income, personal characteristics such as age, gender, personality and ethnicity (Thoits & Hewitt, 2001), socially developed characteristics like education, type of work or unemployment. Moreover, subjective wellbeing correlates are attitudes and beliefs towards others, life, trust, political persuasion and religion as well as personal relationships. A literature review of happiness correlates with a special focus on the effect of economic factors and financial crises on happiness is provided in this section.

#### Demographic and personality characteristics

Studies have shown that women report happier than men (e.g. Diener et al., 1999; Dolan et al. 2008; Huppert 2009). On the other hand, other studies find that gender does not show any differences (Louis & Zhao, 2002). Age is also correlated with happiness. Most of the previous empirical studies show that age has a U shaped effect on happiness. Happiness is minimized around thirty, and in general younger and older individuals score higher in happiness levels (Clark & Oswald 1994; Gertham & Johannesson 2001; Frey & Stuzer 2002; Helliwell 2003; Blanchflower & Oswald 2008).

Furthermore personal relationships can explain variation in reported levels of happiness. Married people are often found to be happier (Diener et al. 2000; Helliwell, 2003; Gertham & Johannesson, 2001; Mastekaasa, 1993) than divorced or widowed. Personal relationships also include friendship and family relations. Again, a positive association between happiness or subjective well being and friendship is reported (Lelkes, 2006; Pichler, 2006, Csikszentmihalyi & Hunter 2003).

Level of education is suggested to be positively correlated with happiness (Blanchflower & Oswald, 2004). Other studies support that this positive impact a representative case for countries with lower income levels (Fahey & Smyth, 2004; Ferrer-i-Carbonell, 2005) or that education is correlated with other attributes like income. Hence, higher education means higher levels of income which explains the increased reported levels of happiness.

So far, results from previous literature on how personal characteristics and demographic factors are reviewed. They can explain some of the differences in reported levels of happiness. More factors belonging to this category are analyzed as having strong effects on subjective well being or happiness. But as this thesis is going to examine happiness more relevant to the economic, social and political factors related to happiness or subjective wellbeing it will be thoroughly discussed where empirical work has reached until now. Factors related to wider economic social and political environment refer to income inequality, unemployment, inflation, welfare system and public insurance, degree of democracy and safety (Dolan et al. 2008).

#### Economic factors

The most common economic factor addressed in the majority of studies is income. Wealthier people tend to be happier than poorer ones. But why wellbeing does not rise when a country gets wealthier? (Easterlin, 1974). Easterlin paradox fired the discussion among academic and researchers and a large body of work on which is the role of income has become now standard literature on economics of happiness. Interpreting the role of income though is complex and as studies already suggest can be subject to reverse causality (Diener et al. 2002; Marks & Flemming, 1999; Schyns, 2001).

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Furthermore, research has shown that absolute income is not a good indicator of wealth compared to relative income. Individuals compare their income relative to the income of others. This implies that social comparisons make people appreciate their own situation differently. Several studies use relative income instead of absolute (Dorn et al 2007; Ferrer-i-Carbonell, 2005; Luttmer, 2005; Weinzierl, 2005). Moreover, given that individual happiness is affected by relative income rather than absolute income country differences in self report measures of wellbeing can be explained. Country level comparisons are not easy since relative income between an advanced and developing economies is not the same and secondly because standards of living largely differ.

Evaluating the effect of income on wellbeing is far more complicated. Wellbeing is also affected by income aspirations a view that gives space for the notion that "status" and not income itself gives powerful explanations (Johnson & Krueger, 2006; Wildman & Jones, 2002). Therefore, having high income aspirations for the future decreases subjective wellbeing. These results particularly stand for higher income levels where aspirations are also higher (Stutzer, 2004;). In recession periods individuals experience quite often income loss.

Contradicting findings exist on the effect of unemployment on wellbeing. On the one hand there are findings to support that unemployed individuals experience identity problems, psychological distress and low self-respect (Veenhoven, 1989; Gallie & Russel, 1998). More recent work on the subject show that unemployed people are less happy compared to employed individuals (Clark & Oswald, 1994,; Frey & Stuzer, 2002,; Ingelhart, 1990,; Winkelmann & Winkelmann, 1998). But some of them also suggest that individuals are not informingly affected by unemployment. Men, middle aged groups and groups with higher education are affected more (Clark & Oswald, 1994; Clark, 2003). The effects of unemployment are not informingly distributed across countries. The differences across countries can be attributed to the different social environment and especially to what is perceived as socially accepted. Some societies might be more willing to accept unemployed individuals. Consequently, people who live in a society relatively reluctant to unemployment will report less happy (Clark 2003; Frey & Stuzer 2002; Layard 2005; Warr 2007).

Gross Domestic Product (GDP) is the most common used measure to evaluate the economic performance of a country. A first advantage is that data on GDP or GDP growth are available for long periods of time and for a lot of countries. Although GDP reflects the economic situation and can be addressed as a criterion to evaluate whether a country performs well or is going through recession periods it is questionable whether it can be a good measure to address the impact of economic crisis on wellbeing. Stuckler et al. (2009) arguments on the use of GDP rely on the drawback that it is unable to capture individual effects. However, research findings in the field of financial crises include GDP as a variable to measure the changes in standards of living. As Reinhart and Reinhart (2010), highlight: "Irrespective of bailout costs and swelling government deficits and debts, the most basic measure of the severity of a crisis is its impact on the standard of living. Since the standard of living is a multi-faceted concept, we will start with examining the record of per capita GDP in and following the crisis." In this research paper aggregated data of European population on reported levels of life satisfaction are used. Individual and country specific characteristics are controlled for and therefore it is expected to find a negative effect of lower amounts of GDP on life satisfaction scores.

Inflation is another macroeconomic factor found to be correlated with subjective wellbeing. However, this positive relationship is only found when controlling for personal characteristics and country specific effects (Alesina et al., 2004; Di Tella et al., 2001; Wolfers, 2003, Graham & Pettinato, 2001).

The relationship between inflation and unemployment and how the combination of them affect wellbeing has been object of interest for researchers (Di Tella et al., 2001; Di Tella et al., 2003; Wolfers, 2003). The simultaneous existence of unemployment and inflation and the investigation of their impact on wellbeing have revealed that unemployment has a more negative effect compared to unemployment (Di Tella et al., 2001).

#### Political factors

As discussed in previous scientific work, there is also a third category of variables related to happiness. This category involves the so-called political variables and is related with the political environment and climate within a country. They range from the degree of democracy (Dorn et al., 2005), the degree to which people trust the institutions in their country to the degree of freedom (Veenhoven, 2000), the degree of trust between the citizens (Helliwell, 2003) and government quality (Ott, 2010).

Another possible factor affecting happiness is social hierarchy defined as the differences in power and prestige. Brule and Veenhoven (2012), examined the differences in happiness scores between north and south European countries and concluded that people are happier in less hierarchical countries.

#### 2.3) Financial crises and Happiness

This part follows existing literature on the impact of financial crises on happiness. Furthermore it provides background for the ongoing crisis in Europe and explains the how quality of life and standards of living are influenced when countries go through shocks. After financial crises and happiness are tied together the formulation of hypotheses is presented.

#### The impact of a financial crisis on wellbeing

There are good reasons to believe that financial crises lead to a decrease in happiness or subjective wellbeing. Not only is the general belief that economic difficulty affects psychological wellbeing and therefore self report happiness but studies have shown that inequality in Latin America has a negative impact on happiness (Graham & Felton, 2006). Fahey and Smyth (2004) also found a negative impact of income inequality on reported life satisfaction. Therefore, if financial crises sharpen inequality in a society then it can be noticed in self report measures of happiness.

In 2009, after several concerns of Member states on the consequences of the financial crisis on health World Health Organization reports that mental health and increased stress might be observed in OECD countries. All of the countries will be affected more or less and they provide suggestions to smooth the impact of crisis: protection of income, health care and cooperation between countries.

Previous work on the effects of crises on people usually examines relates them to mental health. Stuckler et al. (2009) investigate the effect of economic changes for 26 European countries and show that unemployment positively affects suicide rates. A study in Finland during the crisis of 1990's, supports that financial difficulties at the period of crisis positively affected various mental disorders. (Viinamaki et al., 2000). Economic difficulties and mental disorders are also reported in other studies (Laaksonen et al, 2009). Previous literature on the impact of a financial crisis on happiness or life satisfaction has been scarce. A recent exception is Gudmundsdottir (2013) who investigated the impact of the current financial crisis in Iceland on happiness. In Iceland, unemployment rose sharply while gross national income. He used Gallup data where a random sample of the population was asked questions on wellbeing in 2007 and in 2009, a year after the collapse of financial institutions. His results demonstrate that a significant and positive connection between the financial crisis and self report life evaluation is not found.

Another recent example is Deaton (2012) whose research investigates the impact of 2007 crisis in wellbeing of Americans. He uses employment, income and the behavior of stock market to explain the changes in wellbeing over the period of two years (2007-2009). Surprisingly enough, he finds that only stock market can partly explain the changes in reported levels of wellbeing.

Furthermore, having debts has been found to have a negative impact on wellbeing. Less work has been done to investigate the effects of debts on wellbeing. Although it is not in depth investigated recent findings already suggest that financial difficulties and the inability to pay a debt are negatively correlated with mental disorder and psychological wellbeing

#### The financial crisis in Europe

Most of the countries worldwide and across years may have faced repeated circles of crisis (Reinhart and Rogoff, 2010)<sup>4</sup>. When it comes to the evaluation of the magnitude of a crisis one should look at the changes in the standards of living (Reinhart and Reinhart, 2010). Economic crisis in general are not explicitly captured by debt or deficits. They include the changes in quality of life as seen by the increase in unemployment rates, inflation or loss of income following a recession.

<sup>&</sup>lt;sup>4</sup> They provide a comprehensive review of crises for 200 years.

In practice, Europe is facing the most severe crisis of the last decades. The consequences of this downfall were not the same for all countries and they heavily depend on the situation of the country prior to the crisis (e.g. public debts). However, in many countries the consequences were tried to be controlled by applying austerity measures and restructuring. The European intervention and strict austerity measures together with the loans from European central Bank had an impact on real economy. This can be seen in actual and potential growth, labour market and employment. But, not all the countries were affected in the same way. Specific countries which were volatile were immediately damaged. It is reported in Eurofound (2012)<sup>5</sup> that the economic crisis indeed affected some Member states more than others. Labour market is particularly affected in Southern Europe (Greece, Portugal and Spain). As shown in the same report, unemployment rate in 2008 reached 7% and increased to 10% by 2010, with a range from 4% in Austria to 23% in Spain. Specific groups of the population are more vulnerable than others and as described by Jenkins et al (2013) these are men and young people were more affected. The decrease in GDP output is more obvious in southern economies such as Greece, Spain and Portugal (Eurofound, 2012), although as shown in this research GDP growth in 2008 is in decline for almost all countries. Economic crisis had clearly decreased quality of life in Europe as living and working conditions deteriorated.

The response to one of the worst economic downturns of the last decades resulted to the initiation of an agenda with strict austerity measures and cutting funds. Health, education, welfare benefits and wages are reduced in many countries.

Given the consequences of the financial crisis of 2008 in Europe, the deterioration of macroeconomic indicators after controlling for sociodemographic characteristics is used to explore their impact on happiness. The effect of political environment as mentioned before is also expected to influence wellbeing. Consequently, trust in institutions and specifically in national governments is used in this research. The argument behind it, is

<sup>&</sup>lt;sup>5</sup> Eurofound (2012), *Third European Quality of Life Survey* 

lying on the belief that economic recessions are not expected to hurt that much when political environment is characterized by stability and people trust them. As also suggested in other studies (Eurofound, 2010b), trust in institutions is positively associated with wellbeing. This relationship is not only relevant to personal level but to the society as a whole because it determines the degree to which people consent to government initiatives (taxes, measures), (Eurofound, 2010a).

#### 2.4) Hypothesis development

This research paper follows a different approach and makes use of some of the suggested indicators which both deteriorate during a financial crisis and affect individual wellbeing. It focuses on three economic factors associated with wellbeing, GDP growth, unemployment and inflation, and tests whether their differences as a consequence of a financial crisis will have a negative impact on life satisfaction. Reinhart and Reinhart (2010) suggest that the consequences of a crisis significantly change the prospects of an economy and as they highlight: "*matter for spending behavior, aggregate supply growth, asset pricing, fiscal budget prospects, and inflation determination",* (Reinhart and Reinhart, 2010). At the same time, the effect of trust in national governments specifically during the crisis is tested. The idea is, that in crisis periods trust in political institutions plays an important role for citizens to feel more secure and finally report happier.

Previous research has examined the relationship between GDP and happiness. Especially, in periods of financial crisis GDP and GDP growth is obviously lower. As European Commission reports, GDP growth in European countries in 2009 and 2010 is 50% lower. These differences are expected to negatively affect happiness, and based on this the first hypothesis is formed:

*Hypothesis 1:* During the crisis, the decrease in GDP growth is expected to have a negative effect on reported life satisfaction.

The second indicator negatively associated with human happiness is unemployment rates. Rather than exploring the effects of unemployment itself, the main idea of this research is to examine the changes (expected increase in unemployment rates) during the crisis. The costs from a financial crisis are immediately observed in terms of unemployment and can be noticed that unemployment rates rise sharply.

*Hypothesis 2:* During the crisis, the increase in unemployment rates are expected to have a negative effect on reported life satisfaction.

Inflation negatively affects wellbeing. The calculated costs from increased prices in an economy impact spending behavior and decrease consumers' power. It is expected, as a result of a financial crisis that inflation rates will increase. Hence, the last hypothesis is the following:

*Hypothesis 3:* During the crisis, the increase in inflation rates are expected to have a negative effect on reported life satisfaction.

Following previous literature (Veenhoven, 2000), this research argues that the high degree of trust in institutions in crisis periods can be an important determinant of reporting high life satisfaction. The argument is that economic consequences in real life will affect less life satisfaction since the trust in national governments is considerable. A high degree of trust in government can definitely have a suppressive power on negative expectations about future. The adobe three hypotheses are also interacted with political variables to test whether trust in national governments has an additional positive effect on life satisfaction. Therefore, three additional hypotheses are tested. *Hypothesis 4:* During the crisis, and when trust in government is low, the decrease in GDP growth when is expected to have a negative effect on reported life satisfaction.

*Hypothesis 5:* During the crisis, and when trust in government is low, the increase in unemployment rate is expected to have a negative effect on reported life satisfaction.

Finally the last hypothesis includes the interaction effects between inflation rate and trust in national government and is presented below.

*Hypothesis 6:* During the crisis, and when trust in government is low, the increase in inflation is expected to have a negative effect on reported life satisfaction.

### 3. Methods and model specification

This research employs a probit model to explore various determinants of happiness. The independent variable is life satisfaction and it is of categorical nature. The structure of the dataset differs from that of the panel. Observations are pooled over time and separate cross sectional regressions are run in order to see the effects of economic indicators on happiness during a recession.

#### **Ordinal Probit Model**

The preferred model for exploring the data is the ordinal probit model. Ordinary least square regression is not suitable to analyze a variable with categorical outcomes since the BLUE assumptions are not met. One of the most important issues is that the distance between two categories of an ordinal variable might not be equal. More specifically, the difference between someone stating that he is "Fairly satisfied" with his own life to "Very satisfied" is not comparable to the distance between two other categories such as "Fairly satisfied" to "Not at all satisfied". Maximum likelihood estimations including ordered probit models use a latent variable which is the unobserved, to take into account the probability or the likelihood of the different outcomes to occur.

The fundamental difference between probit and logit models lies to the distribution of the error term logistic and normal respectively. In practice the differences are quite small and as it is pointed out by Greene (2000) it is quite difficult to choose between them.

The dependent variable yields four categorical outcomes "1", "2", "3", "4" and the probit model gives us the probability of any of these outcomes occurring using an iterative process. The marginal effect of this probability is the estimated coefficient which indicates the effect of the independent variable on the dependent.

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Marginal effects for the probit estimation can actually show as not only the magnitude of the probability but also the exact effect. For every explanatory variable, the marginal effect it is not constant and therefore it needs to be calculated using the standardized normal distribution.

Overall, ordered probit models calculate the cumulative probability of being in a category of the dependent variable versus an alternative category. Therefore, a base category is used by default in order to make the comparison feasible.

The model of this research is specified below:

# $\begin{aligned} \textit{ReportedHappiness}_{jit} &= \Sigma \textit{Personal}_{jit} + \Xi \textit{Economic}_{it} + \Lambda \textit{Political}_{jit} + \\ \epsilon_i + \lambda_t + \mu_{jit} \end{aligned}$

ReportedHappiness<sub>jit</sub> is the self report measure of life satisfaction of person j in country i in year t.  $\Sigma$  Personal is vector of personal characteristics of each individual and includes gender, age group, marital status, occupational status, education (to age), number of children and income quartile or financial situation of the household where the individual belongs to.  $\Xi$  Economic is a vector of country characteristics It consists of GDP growth, unemployment rate and inflation rate in country i in year t.

A *Political*<sub>jit</sub> is a vector of variables measuring the degree of trust for individual person j in country i in year t for a number of political issues. It includes trust in institutions and specifically trust in government. Country fixed effects  $\varepsilon_i$  and Year fixed effects  $\lambda_t$  are included in the equation.

#### **3.1** Data and Description of variables

The main data source used for this thesis paper is GESIS Eurobarometer Survey Series. The survey is annually performed in European countries starting from 1975 to 2012<sup>6</sup>. Among others, it contains information for happiness and life satisfaction scores for thousands of people in Europe. The sample used for this research thesis concerns the time period from 1997 to 2012. There are two reasons of investigating this period.

The first regards data availability. Although variables which are of main concern for this paper such as life satisfaction are available for a longer period of time, GESIS surveys have been updated over time including more information. Over the years, new variables such as trust in institutions are added to the survey. Micro data (individual level information) on how satisfied people feel for the degree of democracy in their country or how trustful do they thing various institutions (including parliament, media, political parties or big companies) are, made this research paper feasible and valuable. The second reason for investigating this period evolves the presence of one of the biggest financial crisis which begun in 2007 and started to affected Europe in the beginning of 2008.

Moreover, this thesis is focused only on life satisfaction, mainly because these scores are available for longer time period. Many studies have found that happiness and life satisfaction scores are positively correlated (Di Tella et al., 2003<sup>7</sup>).

The gathered information lead to the composition of a pooled cross section dataset which includes 30 European and candidate or selected EFTA countries. The sample consists of more than 380.000 individuals for all of the countries within Europe and European borders from 1997 until 2012. Countries which are included in the sample (1997-2012) are: Austria,

<sup>&</sup>lt;sup>6</sup> The following files are used for the construction of the dataset: ZA5612 for 2012, ZA5567 for 2011, ZA5449 FOR 2010, democracy satisfaction for 2010 is taken from 5235, ZA4994 for 2009, ZA4819 FOR 2008, ZA4530 for 2007, ZA4526 for 2006, ZA4411 for 2005, ZA4229 for 2004, ZA3938 for 2003, ZA3693 for 2002, ZA3627 for 2001,ZA3387 for 2000, ZA3171 for 1999, ZA3052 for 1998, ZA2936 for 1997,

<sup>&</sup>lt;sup>7</sup> Di Tella et al.2004 found a correlation coefficient equal to 0.53 for the period 1975-1986

Belgium, Germany<sup>8</sup>, Denmark, Spain, Finland, France, Great Britain<sup>9</sup>, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal and Sweden. In 1994 Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, Slovenia, Bulgaria, Romania, Turkey<sup>10</sup> and Croatia are added. Starting from 2007 FYROM and Iceland are also included<sup>11</sup>.

Due to the fact that this research is performed on the individual level it is useful to include variables of the same nature.

Main variable of interest and focus of this research paper is the dependent variable life satisfaction. A five scale life satisfaction variable is build by asking the question "*On the whole, are you very satisfied, fairly satisfied, not very satisfied or not at all satisfied with the life you lead?*". The given answers *are* "*Very satisfied*", "*Fairly satisfied*", "*Not very satisfied*", "*Not very satisfied*", "*Not at all satisfied*" and "*DK*". The last category "Don't know" is not taken into account so only four categories are left.

Gathered information from the GESIS Eurobarometer Survey Series provides valuable data which are grouped for the purpose of this research into three different groups:

The first group includes information on individual personal characteristics. Individual characteristics are useful in a research especially when it is focused on the effect of a financial crisis on different age groups, gender, employment status, type of occupation. Micro level data are used as controls for personal characteristics and include the following variables.

**Gender** is a dummy variable which takes value 0 if the person is male and 1 otherwise. **Age group** categorizes individuals into 4 different age groups (15-24, 25-39, 40-54, 55+). **Occupation** is recoded into six groups and individuals are categorized as *Employed*, *Self-employed*<sup>12</sup>, *Unemployed*,

<sup>&</sup>lt;sup>8</sup> Germany includes aggregated data for West and East Germany.

<sup>&</sup>lt;sup>9</sup> Great Britain includes Northern Ireland.

<sup>&</sup>lt;sup>10</sup> Turkey includes aggregated data for Turkey and Cyprus (TRR)

<sup>&</sup>lt;sup>11</sup> From the sample taken, Malta is excluded because of data unavailability (World Bank). Norway is also left out of the sample because numbers were only available previous to 2000 only. Serbia and Montenegro are only available in 2012 and therefore are also dropped from the sample.

<sup>&</sup>lt;sup>12</sup> Category Self-employed includes the following categories: "Farmer", "Fisherman", "Professional", "owner", "Business".

Retired or unable to work, Home and Student. Marital status is recoded into 4 different groups ("Single or Unmarried, Married, Divorced and Widowed). Categories "Other" and "Spontaneous" are left out. Age-Education variable shows at which age the respondent completed the full time education. It is recoded into four subgroups ("15-","16-19","20+", "Still studying" and "No full time education"). Categories "Don't know" and "Refuse" are left out. Income quartiles categorises the income quartile in which the person belongs to. It includes four categories.(1=Lowest income quartile, 2=Next to lowest income quartile, 3=Next to highest income quartile 4=Highest income quartile. Due to the fact that this variable is only available for a limited period of time (1997-2003) an alternative measure is chosen. *Financial situation*<sup>13</sup> is used as the alternative measure for the period 2004-2012. Individuals report on what is the financial situation of their household. It also includes the following four categories: ranging from Very bad, Rather bad, Rather good, Very good (do not know is dropped). *Number of children* provides information on the number of children aged less than 15 years old that live in the respondent's household<sup>14</sup>. It includes four categories: "None", "1", "2", "3", "4+".

The second source of data comes from the World Bank and represents the "crisis" indicators. Country level information on GDP growth rate (% annual), inflation (consumer prices) and unemployment rates for the period 1997-2012 and each country of the sample are added. Economic variables represent country level information. In order to be able to see the effect of a generalized economic phenomenon to each individual the annual changes in GDP (GDP growth) are actually regressed on reported life satisfaction.

The third set of indicators contains the political variable, trust in institutions which is available on a micro-level. It is taken from GESIS Eurobarometer Survey Series and is available for the whole period under investigation.

<sup>&</sup>lt;sup>13</sup> How would you judge the current financial situation of your household?

<sup>&</sup>lt;sup>14</sup> It is constructed as the sum of two variables that answer the following questions: "*Could you tell me how many children less than 10 years old live in your household?"* And "Could you tell me how many children aged 10 to 14 years old live in your household?"

Trust in institutions is used as a proxy to measure the political situation in the European countries under examination. The one used in this study is **Trust in Government**. The question to be answered is "*I would like to ask you a question about how much trust you have in certain institutions. For each of the following institutions, please tell me if you tend to trust it or tend not to trust it*». Two categories form the possible answers "*Tend to trust"* and "*Tend not to trust"* (Don't know is left out).

Tables 1 and 2 provide the description of all variables and summary statistics.

Variable	Observations	Mean	Standard deviation	Min	Max
Life satisfaction	362492	2.934818	0.78883	1	4
Gender	364636	0.537692	0.49857	0	1
Age	364570	46.43282	18.0323	15	99
Age Group	364570	2.820929	1.05601	1	4
Education to age	364640	2.274778	1.07586	1	5
Marital status	364640	2.782402	1.18295	1	5
Occupation	364640	2.798692	1.75834	1	6
Number of children	332792	0.541888	0.92676	0	4
Financial situation	162718	2.620319	0.81352	1	4
Income Quartiles	77673	2.491805	1.11804	1	4
Trust in government	295685	1.398397	0.48956	1	2

#### **Table 1: Description of variables**

#### **Table 2 Description of variables**

Variable	Observations	Mean	Standard deviation	Min	Max
GDP per capita Growth	476	2.34	3.85	-17.54	14.87
Unemployment	448	9.35	6.07	1.8	37.3
Inflation (Consumer prices annual %)	480	7.19	49.32	-4.48	1058.37

#### 3.2 Identification of a Financial Crisis

The group of economic variables is used to show the effects of a crisis, which have an effect on real economy. As reviewed in hundreds of papers their effect can be seen in various variables including unemployment, inflation rates and decreased output.

Inflation crises are identified in the literature using thresholds (Reinhart and Rogoff, 2010). On the other hand, banking crises are not identified by quantitative thresholds. Instead, Reinhart and Rogoff (2010) identify banking crises using two criteria. As they described they are: "1) Bank runs that lead to the closure, merging or takeover by the public sector of one or more financial institutions 2) or if there are no runs 2) the closing, merging or closure of one or more big financial institutions that marks the start of the string or similar outcomes for other financial institutions".

Laeven and Valencia (2008) also provide a definition banking crisis. Following their definition a banking crisis is "*in a systemic banking crisis, a country's corporate and financial sectors experience a large number of defaults and financial institutions and corporations face great difficulties repaying contracts on time. As a result, non-performing loans increase sharply and all or most of the aggregate banking system capital is exhausted*".

Laeven and Valencia (2012) provide an extensive review and description of banking crisis. For the purpose of this research their recently updated database is used for the identification of systemic crises in European countries. To identify the year and countries where it took place a dummy variable is constructed. It takes value 1 when a financial crisis occurs and 0 otherwise. Below a table with the begin date is provided.

	Beginning Year	Year systemic
Austria	2008	2008
Belgium	2008	2008
Denmark	2008	2009
Germany	2008	2009
Greece	2008	2009
Iceland	2008	2008
Ireland	2008	2009
Latvia	2008	2008
Luxembourg	2008	2008
Netherlands	2008	2008
Spain	2008	2011
United	2007	2008
Kingdom		
France	2008	-
Hungary	2008	-
Italy	2008	-
Portugal	2008	-
Slovenia	2008	-
Sweden	2008	-

Table 3: European countries in 2008 crisis

As it can be seen 18 European countries were influenced by the crisis in 2008 (only UK in 2007). Only the beginning year of the crisis will be used and not the year it becomes systemic because the borderline case will be also included in the sample. To what extend these variable are representative to "translate" a generalized economic downfall into lower levels of happiness will be validated by

the results.

Additional to this, an economic crisis cannot fully explain any possible outcome. Not all the countries felt the effects of the crisis to the same extend. Some of them were directly influenced as they were already experiencing problems with their domestic debt and public sector. It might be also the case that not only financial situation and as a result not only economic variables had an impact on happiness. Countries experiencing at the same time a "political crisis" might have felt a more dramatic impact. To account for this effect the research also makes use of the degree of trust in national governments.

As discussed not all the countries experienced the same results and were not influenced to the same degree. The main indicator to be examined in this research is GDP growth. Usually the consequences of a crisis can be easily seen in terms of output and employment (Eurofound, 2012). The numbers for GDP growth shown in the graph are taken from the World Bank Database. Let's see what happened in certain countries Europe after 2008 in terms of growth. The complete list of graphs can be found in the Appendix.



Graphs 1: GDP growth (annual percentage) to selected European countries, 1997-2012





A dramatic downfall in output can be observed as GPD growth deeply decreased in all the countries in the sample. Once again the most serious case is Greece not only because of the deep reduction but also because signs of recovery are not observed. Graph plots GDP growth for the period 1997-2012. Greece has a negative growth rate for each single year following 2008. Italy also has a constantly negative growth rate with a peak in 2009 when the GDP growth rate reaches -6.01% only a year after the beginning of the crisis. Hungary also experienced a great reduction which partly recovered a year later, from -6,7 to 1,5 in 2010.

Moreover, countries that were not influenced that much in the beginning of the ongoing crisis still went through a decrease in their output. Great Britain's GDP growth decreased from 3 in 2007 to -4,6% in 2009, but also turned again positive only a year after. In Denmark, a decrease in GDP growth took place after 2007 and reached the negative percentage of 6 points. The next year it already becomes positive again. The graphs showing the same for the rest of the countries can be found in the appendix.

After describing the sample, source and methods and providing the methodology of crisis identification the next chapter starts with providing descriptive statistics and results of the regressions.

### 4. Presentation and discussion of results

#### 4.1 Summary statistics

In this section, summary statistics for life satisfaction scores are provided. Table 4 gives information on average life satisfaction across countries for the period (1997-2012).

In Denmark 65.27% of the population reports that they are very satisfied with their life. The score is the highest among the other European countries. Iceland, Netherlands, Sweden and Luxembourg also score high on happiness rankings (57.06%, 46.37%, 43.49% and 41.28% respectively). The less happy nations seem to be Bulgaria, Portugal and Hungary since the percentage of population reporting very satisfied with their lives reaches 2.81%, 4.12% and 5.65% respectively. Still, for the less happy countries there are quite big differences between the percentages of those who report very satisfied to those who report not at all satisfied. In Bulgaria 23.64% of the total population reports not at all satisfied a number which is more than two times the percentage for Portugal (11.31%).

Table 5 presents summary statistics for life satisfaction scores according to personal characteristics. Men tend to be happier than women. Among those who report very satisfied with their lives 42.52% are highly educated people. Unemployed are those who are less satisfied with life in general. Listed by marital status, married (23.57%) and single individuals (23.83%) are happier.

The percentage of individuals who are in a good financial situation and at the same time report happier, reaches 50.71%. This is also the case for individuals who belong to the highest income quartile are they are associated with reporting high on happiness scale (34.44%).

Variable	Not at all satisfied	Not very satisfied	Fairly satisfied	Very satisfied	Total
Austria	1.68	12.99	62.70	22.63	100.00
Belgium	3.02	10.74	61.06	25.18	100.00
Germany	4.07	17.16	62.54	16.23	100.00
Denmark	0.60	2.48	31.65	65.27	100.00
Spain	3.24	15.80	63.06	17.90	100.00
Finland	1.08	6.86	62.07	30.00	100.00
France	5.24	14.53	64.52	15.71	100.00
Great Britain	2.26	8.65	55.54	33.55	100.00
Greece	12.25	29.94	48.16	9.66	100.00
Ireland	2.16	8.24	56.02	33.59	100.00
Italy	5.12	20.93	62.95	11.00	100.00
Luxembourg	1.41	5.68	51.63	41.28	100.00
Netherlands	0.90	4.75	47.98	46.37	100.00
Portugal	11.31	33.37	51.20	4.12	100.00
Sweden	0.65	3.69	52.16	43.49	100.00
Cyprus	4.58	13.61	50.75	31.07	100.00
Czech Republic	2.67	16.79	69.13	11.41	100.00
Estonia	4.04	23.99	63.97	7.99	100.00
Hungary	16.35	36.93	41.07	5.65	100.00
Latvia	8.50	31.69	52.22	7.58	100.00
Lithuania	10.74	31.80	47.16	10.31	100.00
Poland	5.39	20.41	61.88	12.32	100.00
Slovakia	6.05	27.06	56.30	10.60	100.00
Slovenia	2.18	11.54	64.21	22.07	100.00
Bulgaria	23.64	40.29	33.27	2.81	100.00
Romania	14.59	37.67	42.89	4.86	100.00
Turkey	12.55	21.12	42.63	23.70	100.00
Croatia	7.98	23.50	52.30	16.22	100.00
FYROM	18.89	17.26	52.73	11.12	100.00
Iceland	2.50	2.78	37.66	57.06	100.00

Table 4: Average Life satisfaction in Europe
Life satisfaction	Not at all satisfied	Not very satisfied	Fairly satisfied	Very satisfied
Gender				
Male	5.52	16.74	54.86	22.88
Female	5.93	17.89	54.33	21.85
Age group				
15-24	3.26	12.64	56.98	27.12
25-39	4 90	16.61	56.17	22 32
40-54	6 56	19.03	54 44	19 97
55+	6.72	18.51	52.57	22.20
Education( to age)				
15-	9 34	22 36	51 71	16 58
16-19	5.76	18 97	55.88	10.30
20+	3.70	11.62	53.00	20 03 72'44
Still studying	6 71	16.20	51.72	20.22
No full time education	0.71	10.20	57.71	20.00
	2.33	10.27	57.20	20.21
IncomeQuartiles				
/Financial Situation	6 474	10.001	<b>E4</b> 644	40.001
Lowest income quartile/ Very	6.17/	19.90/	54.01/	19.92/
Bad Financial situation	36.08	34.65	24.15	5.13
Next to lowest quartile/Rather	3.74/	14.74/	58.24/	23.28/
Bad Financial situation	7.82	32.17	49.21	10.81
Next to highest quartile/	2.65/ 2.23	12.59 /	59.32/	25.44/
Rather Good Financial situation		9.99	64.66	23.12
Highest quartile/Very good	1.54/	8.84 /	56.17/	33.44/
financial situation	1.32	5.59	40.81	52.29
Occupation				
Employed	3.65	15.34	57.82	23.20
Self-employed	5.20	16.48	55.45	22.87
Unemployed	15.36	29.94	43.69	11.01
Retired	7.37	19.79	51.81	21.03
Home	6.77	17.27	53.43	22.52
Student	1.96	9.80	57.18	31.06
Number of children				
None	6.22	18.27	53.99	21.51
1	5.47	17.45	55.50	21.58
2	4.87	15.05	55.13	24.96
3	5.70	14.03	52.67	27.60
4+	7.60	16.63	50.44	25.32
Marital Status				
Divorced	8.59	23.86	51.78	15.77
Married	5.41	16.71	54.32	23.57
Separated	8.23	22.25	52.80	16.73
Single or Unmarried	4.38	14.83	56.95	23.83
Widowed	9.41	23.53	51.34	15.72

## Table 5: Summary statistics

What is interesting to observe, rather than merely looking at average life satisfaction scores across countries, is whether happiness scores vary across time. Do they uniformly change for all countries leading to the assumption that a specific event happening in a given year has a more general effect for all, or is it that happiness scores decrease or increase depending on the specific country situation? A crisis is not a country specific event but it has spread to a whole region and has systemic effects. It is expected though that since the recession has not affected all on the same degree and the fluctuations of GDP growth are not of the same size for all countries the variation in happiness scores for the period 1997-2012. Average happiness scores (from 1 to 4) for each country over the period 1997-2013 are plotted in Graph 2. For the complete list of countries check the appendix. As it can be noticed some countries report higher and more stable results while others report a higher variance.

Austria reports a stable decrease in life satisfaction after 2008 which only recovers to previous levels after 2011. It is interesting to notice happiness scores for the countries mostly hit by the financial crisis, the countries of South. Italy, Spain, Ireland, Portugal, Cyprus and France constantly report lower levels of life satisfaction after 2008. Perhaps the most striking case is Greece where average life satisfaction decreases from 2.7 in 2007 to 1.99 in 2012. Portugal has also shown significant change during the same period when life satisfaction dropped from 2.6 to 2.1. Individuals in Slovenia and Lithuania also reported lower levels of life satisfaction after 2008 but the change in average scores was not that rapid.

On the other hand one can notice that northern European countries report similar or even unchanged happiness scores during and after the crisis. For Netherlands, there is a slightly upward line of average life satisfaction. Germany also reports slightly higher scores after 2008, from 2,9 to 3,1. Denmark is another striking case where average happiness is steadily over 3,5 units on a four scale measurement. Still, Denmark steadily reports higher scores each year.















It can be observed that across years and especially after 2008 the year of the crisis some countries systematically show lower life satisfaction (eg Greece). On the other hand, other countries seem to be less affected from the recession at least in terms of wellbeing. In contrast, there are countries which have slightly bigger satisfaction in 2008 (compared to a year before, 2007). This group includes Netherlands, Denmark, Sweden, Bulgaria and Finland. By plotting standard deviation for these countries, this research will attempt to observe what happens not only in the change of happiness but also the quality in the differences of self-report measures within a country across years. It is expected that the standard deviation will be higher so that the differences between those stating happier and those who state less happy will be substantial. Quality of happiness seems not affected (the results are not presented here) for all European countries as the differences in standard deviation are not higher.

The next part presents the results and analysis.

## 4.2 Discussion of results

Table 6 presents the first models employed in this research. Regressions 1 and 2 show some baseline results of the marginal effects of ordered probit estimations. They do not involve any country specific characteristics or time trends but show instead the pure effect of personal characteristics and demographic factors on life satisfaction.

Regression 1 includes the time period from 1997 to 2004 for which the variable "income quartiles" in which the person belongs to, is available. Regression 2 regards the period 2005-2012 for which "financial situation of the household" is included as a proxy of personal financial situation. Income quartiles and financial situation of the household are not correlated and therefore two separate samples are distinguished in the analysis. On the other hand, the obtained marginal effects show of the first two regressions show

that they both have a negative effect on likelihood of increasing life satisfaction and it is of similar magnitude and all highly significant.

As it is expected, being in the lowest income quartile has the smallest positive impact on stating happier an effect which is maximized, as one moves closer to the highest category (closer to higher income quartile). The same effect holds for the impact of financial situation of the household. Living in a household which is in a very good financial situation increases the likelihood of reporting a lower level of life satisfaction (0.5078) compared to living in a household with rather bad financial situation (0.1992). Being over 55 years old has the highest positive effect on happiness for both models .

In the next four regressions country and year trends are gradually added in order to look at whether the effect is similar or different, for various countries and years.

The next two regressions include country dummies and employ an ordered probit model using life satisfaction as dependent variable. The same set of personal characteristics is used as control. Lastly, regression 5 and 6 include country and year dummies.

The effects of most of the variables remain the same. Being next to the lowest income quartile, or being in a rather bad financial situation, or being unemployed, has a negative effect on the probability of being less happy. Being in a specific country has a different effect on happiness. France, Greece, Italy and Germany increase the probability of reporting less happy. On the other hand, living in Ireland, Great Britain, Finland, Netherlands and Denmark has a positive effect on life satisfaction. The whole list of countries can be found in the Appendix.

Regressions 5 and 6 include time dummies. Results show that being in year later than 2006 decreases life satisfaction. The stronger effect is in 2008 a year when the negative impact maximizes. This is in line with the theory and the expectations as 2008 is the beginning year of crisis.

Table 6: Ordered	probit rea	ression on	life	satisfaction

	eu probit reg					
Female	<b>(1)</b> 0.0070*	(2) 0.0068***	<b>(3)</b> 0.0358***	<b>(4)</b> 0.0110***	<b>(5)</b> 0.0157***	<b>(6)</b> 0.0118***
I EIIIdie	(0,0070*	(0.0013)	(0.0105)	(0.0012)	(0.0020)	(0.0012)
25-30	-0.0304***	-0.0337***	-0 1562***	-0.0486***	-0.0335***	-0.0012)
25 55	(0,0060	(0,0030)	(0.0198)	(0.0028)	(0.0055)	(0.0028)
40-54	-0.0285***	-0.0301***	-0.2211***	-0.0773***	-0.0521***	-0.0780***
-10 J-1	(0,0205)	(0.0031)	(0.0218)	(0,0030)	(0.0061)	(0,0700)
55+	0.00000	0.0031)	-0.0210)	-0.0552***	-0.0132***	-0.0561***
551	(0.0075)	(0.0035)	(0.0250)	(0,0033)	(0,0132	(0 0033)
16-10	0.0073)	0.0033)	0.0230)	0.00000	0.0070)	0.00000
10-19	(0,0024	(0.0018)	(0.0135)	(0.0017)	(0.00207	(0.0017)
20+	0.1463***	0.0010)	0.1164***	0.0017	0.0050	0.0017)
201	(0.0047)	(0.0021)	(0.0164)	(0.0020)	(0.0046)	(0,0024
Still studying	0.0097)	0.0021)	0.5191***	-0.0020)	0.00+0)	(0.0020)
Suil studying	(0.0503)	(0.00/17)	(0.1664)	-0,0038	(0.0463)	-0,00+1
No full time	0.000000	(0.00+7) _0 0270***	0.1004)	-0.0095	0.0706***	(0.00++)
no run time	(0.0510)	-0,0270	(0,1696)	-0,0095	(0.0470)	-0,0100
Married	0.0510)	0.0027)	0.1000)	0.0003)	(0.0 <del>1</del> /0) 0.002/***	0.0004)
Marrieu	(0,0057	(0.0067)	(0.0210)	(0.0025)	(0,0024)	(0,0004
Constated	0.0003)	0.0007)	(0.0216)	0.0023)	(0.0001)	(0.0025)
Separateu	-0,0054	0,0210		0,0132	0,0140	0,0111
	(0.0130)	(0.0054)	(0.0455)	(0.0050)	(0.0127)	(0.0050)
Single or Unmarried	0,0323****	0,0549****	0,1120****	0,0300	0,0418****	0,0340
Widewood	(0.0072)	(0.0030)	(0.0239)	(0.0028)	(0.0007	(0.0028)
widowed	0,0143****	-0,0062**	0,0990	0,0178****	0,0437	0,0170****
	(0.0083)	(0.0034)	(0.0273)	(0.0031)	(0.0076)	(0.0031)
Seir-empioyea	-0,0530***	-0,0041	-0,0076	0,0094***	0,0086	0,0091***
L la succe la cond	(0.0057)	(0.0025)	(0.0191)	(0.0023)	(0.0053)	(0.0023)
Unemployed	-0,158/***	-0,0694***	-0,4610***	-0,0648***	-0,1154***	-0,0644***
	(0.0066)	(0.0026)	(0.0218)	(0.0024)	(0.0060)	(0.0024)
Retired	-0,0008	-0,011/***	0,0247	-0,005/***	0,0172	-0,0064***
	(0.0056)	(0.0022)	(0.0187)	(0.0021)	(0.0052)	(0.00210
Home	-0,0212***	0,01/4***	-0,0183	0,005/**	0,0054	0,0049
	(0.0056)	(0.0027)	(0.0188)	(0.0026)	(0.0052)	(0.0026)
Student	-0,1653***	0,12/5***	-0,350/*	0,0938***	0,0106	0,1010***
	(0.0505)	(0.0066)	(0.1669)	(0.0026)	(0.0465)	(0.0063)
1	-0,008/*	0,0075***	-0,0112	0,0040**	0,0022	0,0036
2	(0.0044)	(0.0020)	(0.0145)	(0.0062)	(0.0041)	(0.0018)
2	0,0138***	0,0329***	-0,0075	0,008/***	0,0019	0,0082***
2	(0.0045)	(0.0024)	(0.014/)	(0.0018)	(0.0044)	(0.0022)
3	0,0289***	0,0494***	0,0059	0,0039	0,0091	0,0031
	(0.00/0)	(0.0044)	(0.0229)	(0.0022)	(0.0066)	(0.0040)
4+	0,0399***	0,0199**	0,0213	-0,0098	0,0162	-0,010/
	(0.0098	(0.0067)	(0.0317)	(0.0040)	(0.0092)	(0.0063)
Lose to lowest						
income	0.000044444			0.4700.4444		
quartile/Rather bad	0,0338***	0,1992***	0,1500***	0,1/02***	0,0483***	0,16/4***
financial situation	(0.0044)	(0.0028)	(0.0145)	(0.0025)	(0.0040)	(0.0026)
Close to highest						
income /Rather good	0,0399***	0,3564***	0,2334***	0,2886***	0,0723***	0,2869***
financial situation	(0.0047)	(0.0028)	(0.0154)	(0.0027)	(0.0043)	(0.0027)
Highest income	0.000000000			0.0000		
quartile/Very good	0,0866***	0,50/8***	0,4020***	0,3923***	0,1195***	0,3899***
financial situation	(0.0049)	(0.0034)	(0.0164)	(0.0032)	(0.0046)	(0.0033)
Belgium			-0,1925***	0.0037***	-0,0546***	0,0376***
Greece			-0,8290***	-0.1550***	-0,2316***	-0.1552***
Netherlands			0,4581***	0.1484***	0,1282***	0.1482***
Sweden			0,4137***	0.1239***	0,1161***	0.1237***
2000					-0,0022	
2008						-0.0091***
2009						-0.0069***

-0.0069\*\*\* Notes: Average Marginal effects. Standard errors in parenthesis \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 Reference categories: Gender: Male, Age group: 15-24, Education to age:15-,Occupation:Employed, Number of children: None, Marital status: Divorced, Income: Closest to the lowest income quartile, Financial situation: Very bad, Country: Austria, Year:2005 for regression (6), 2007 for regression (5). Dependent variable: reported life satisfaction.

The analysis goes a step further than just observing country specific effects or the time specific effects but also the impact of being in a specific country in a specific time, the time of the crisis. The list of countries identified as facing a crisis is taken from Laeven and Valencia (2012) and includes the following countries: Austria, Belgium Denmark, Germany, Greece, Iceland, Ireland, Latvia, Luxembourg, Netherlands, Spain, UK, France, Hungary, Italy, Portugal, Slovenia and Sweden. A dummy variable for the crisis, takes value 1 for the countries referred above in year 2008 and 0 otherwise. The next regression involves the crisis dummy and keeps personal effects and demographic characteristics. Afterwards economic variables are added to the models. A correlation table of economic variables and life satisfaction is provided below.

	life_satisfaction	GDPppGrowth	Unemployment	Inflation
life_satisfaction	1.0000			
GDPGrowth	-0.0293	1.0000		
ΔUnemployment	-0.0052	0.0008	1.0000	
ΔInflation	-0.0099	0.0010	0.0296	1.0000

Table 7: Correlation matrix Life Satisfaction and Change in Economic Variables

Life satisfaction and GDP growth are negatively correlated. The negative sign indicates that life satisfaction at least for the years in the sample is with growth. Life satisfaction is positively correlated with GDP per capita but has a negative association with unemployment and inflation.

Table 8 shows the estimated coefficients (average marginal effects) of probit estimations. In all specifications personal characteristics are included. The tables present only the effect of being unemployed and in a rather bad financial situation. Regression 7 shows the pure effect of crisis on life satisfaction. This effect, after controlling for personal characteristics is positive. There are two possible explanations for this effect. The first one is that personal characteristics including financial situation are not exogenous.

Therefore, an additional model is tested which only controls for strictly exogenous variables which are age and gender. The effect of the crisis (coefficient equal to 0.0014) is still positive but lower. The results of the additional model are presented in the Appendix. The second additional test includes the crisis variable in t+1 in order to look at the effects of the crisis on life satisfaction one year or two years after the crisis. It is reasonable to assume that the effects as observed by the change in macroeconomic indicators need some time to develop and affect self-report happiness. A model including the crisis dummy in t and crisis dummy in t+1 is evaluated. The results show that the effect of crisis a year after it started is negative but not significant (the results of the regression are presented in the Appendix).

Regression 8 presents the marginal effect of GDP growth on life satisfaction including personal characteristics. GDP growth has a negative effect on life satisfaction. Regression 9 reports the same effect when in crisis. Both the GDP coefficient and the coefficient of crisis are the same. The negative sign of the estimated coefficient for growth is not in line with the expectations. Life satisfaction is expected to rise with GDP growth. The negative association points the attention towards the notion that GDP is not developing to the same degree for all the countries. Growth rate is lower for some countries captured by the crisis dummy and higher for others. This opposite directions in growth rates (GDP rates) are proved after obtaining the results of regressions 10 and 11.

Crisis seems to have a positive effect until the logged form of GDP is regressed on the dependent variable. Regression 10 shows the pure effect of logged GDP annual growth. The effect is significant and positively affects the probability of someone to state very satisfied with his or her own life. Regression 11 shows the effect of log transformed GDP during crisis on life satisfaction. The magnitude of log transformed GDP stays unaffected, positive and highly significant. It shows that life satisfaction grows in hand with GDP. Moreover, the effect of crisis in 2008 in the 18 countries captured by the dummy becomes negative. It can be supported that Hypothesis 1 is proved.

Regressions 12 and 13 test the second hypothesis that the change in unemployment rates has a negative on life satisfaction. Column 6 (regression 12) shows that the change in unemployment rate decreases the probability of reporting very satisfied with your life. Column 6 (regression 13) shows the same effect during the crisis. The magnitude of unemployment remains the same, an effect which is not significant. Therefore, the second hypothesis is not confirmed. The last two columns test the third hypothesis that the increase in inflation rates are expected to have a negative effect on reported life satisfaction. After controlling for personal characteristics, results show that the change in inflation has a negative but not significant effect on life satisfaction (Regression 14).

The last column (Regression 15) shows the effect of the differences in inflation rate on life satisfaction during the crisis. The coefficients for both of them remain the same. Therefore the third and last hypothesis is not confirmed. The changes in inflation are negatively correlated with life satisfaction but do not have high significance levels. The effect of being unemployed has a stable and negative effect on life satisfaction in all specifications. The effect of living in a household with a rather bad financial situation has a positive impact on life satisfaction (compared to the reference category which is "Being in a very bad financial situation").

	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Crisis	0.0253*** (0.0021)		0.0218*** (0.0024)		-0.0258*** (0.0020)		0.0262*** (0.0021)		0.0260*** (0.0021)
GDPGrowth (%)		-0.0028*** (0.0001)	-0.0026*** (0.0001)						
Log GDP growth				0.1049*** (0.0008)	0.1067*** (0.0008)				
ΔUnemployment						-0.0027 (0.0018)	-0.0027 (0.0018)		
$\Delta$ Inflation								0.0012 (0.0049)	0.0010 (0.0495)
Unemployed	-0.0686*** (0.0025)	-0.0698*** (0.0025)	-0.0691*** (0.0025)	-0.0529*** (0.0025)	-0.0534*** (0.0025)	-0.0686*** (0.0825)	-0.0678*** (0.0025)	-0.0689*** (0.0025)	-0.0681*** (0.0025)
Rather bad financial situation	0.1994*** (0.0027)	0.2009*** (0.0027)	0.2010*** (0.0027	0.1745 (0.0027)	0.1738*** (0.0027)	0.1981*** (0.0028)	0.1984*** (0.0028)	0.1985*** (0.0027)	0.1988*** (0.0027)
Personal Characteristics	Yes								
Ν	193140	190108	190108	188141	188841	188632	188632	190101	190101

#### Table 8: Life Satisfaction, Crisis and Macroeconomic variables, Ordered Probit Regressions

Notes: Average Marginal effects. Standard errors in parenthesis. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 Reference categories: Gender: Male, Age group:15-24, Education to age:15-,Occupation:Employed, Number of children: None, Marital status: Divorced, Income: Closest to the lowest income quartile, Financial situation: Very bad. Trust in Government: Tend to trust. Crisis dummy: Year=2008 in Countries: Austria, Belgium Denmark, Germany, Greece, Iceland, Ireland, Latvia, Luxembourg, Netherlands, Spain, UK, France, Hungary, Italy, Portugal, Slovenia and Sweden. ΔUnemployment: Unemployment (t)- Unemployment (t-1). ΔInflation: Inflation (t)- Inflation(t-1). Dependent variable: reported life satisfaction.

Table 9 shows the effects of GDP growth, crisis and trust in government. Models 18, 19 and 20 also employ interaction effects and test Hypothesis 4. In this way, it is tested if the degree to which citizens do trust politics especially in recession periods plays a role in reported life satisfaction. The negative effect of GDP growth (coefficient is -0.0036) on life satisfaction is always highly significant and is unaffected by the crisis. This suggests that its effect is permanent. GDP growth and life satisfaction do not rise together.

	(16)	(17)	(18)	(19)	(21)
GDP Growth (%)	-0.0030*** (0.0001)	-0.0031*** (0.0001)	-0.0031*** (0.0002)	-0.0030*** (0.0002)	
Tend not to Trust government	-0.0775*** (0.0013)	-0.0775*** (0.0013)	-0.0076*** (0.0013)	-0.0773*** (0.0013)	-0.0762*** (0.0014)
Crisis	0.0193*** (0.0021)			0.0193*** (0.0021)	0.0300*** (0.0033)
Crisis* Not_Trust_Government					-0.0106** (0.0043)
GDP* Not_Trust_Government			0.0000 (0.0003)	5.69e-06 (0.0003)	
Unemployed	-0.0664*** (0.0025)	-0.0670*** (0.0025)	-0.0670*** (0.0025)	-0.0664*** (0.0025)	-0.0659*** (0.0025)
Rather bad financial situation Personal Characteristics	0.1895*** (0.0028) Yes	0.1898*** (0.0028) Yes	0.1898*** (0.0028) Yes	0.1899*** (0.0028) Yes	0.1879*** (0.0028) Yes
Ν	182542	182542	182542	185295	185295

 Table 9: Life Satisfaction, GDP growth and Trust in Government, Ordered Probit

 Regressions

Notes: Average Marginal effects. Standard errors in parenthesis. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 Reference categories: Gender: Male, Age group:15-24, Education to age:15-,Occupation:Employed, Number of children: None, Marital status: Divorced, Income: Closest to the lowest income quartile, Financial situation: Very bad. Trust in Government: Tend to trust. Crisis dummy: Year=2008 in Countries: Austria, Belgium Denmark, Germany, Greece, Iceland, Ireland, Latvia, Luxembourg, Netherlands, Spain, UK, France, Hungary, Italy, Portugal, Slovenia and Sweden. Dependent variable: reported life satisfaction.

The negative coefficient implies that countries within Europe have different rhythms of growth. Some countries such as western European counties grow with higher rates which eastern European countries do not follow. This negative effect becomes even stronger in models 18 and 19 where interaction effect between GDP and not trust in government is used. The tension not to trust government has a strong negative and significant effect on life satisfaction, in all specifications. The interaction between GDP growth and not trust in government has a zero effect on life satisfaction. On the other hand, having not trust in government has a negative, strong and highly significant effect on life satisfaction. It is also worth to mention that having no trust in government during a crisis period has a negative and highly significant effect on life satisfaction. The crisis itself does not negatively influence life satisfaction, an effect which only turns into negative when it is accompanied with low levels of trust in political institutions. Hypothesis 4 is confirmed.

Table 10 shows the effect of unemployment on happiness as well as its interactions with low trust in national governments and presents the results of testing Hypothesis 5. All models control for personal characteristics. The effects of being unemployed or in a rather bad financial situation are significant and presented below. Model 22 gives a negative but not significant effect of unemployment on happiness.

	(21)	(22)	(23)	(24)	(25)
Unemployment (%)		-0.0022 (0.0017)	-0.0022 (0.0017)	-0.0047* (0.0024)	-0.0046* (0.0024)
Tend not to Trust government	-0.0762*** (0.0014)	-0.0766*** (0.0013)	-0.0769*** (0.0013)	-0.0769*** (0.0013)	-0.0766*** (0.0013)
Crisis	0.0300*** (0.0033)	0.0217*** (0.0024)			0.0241*** (0.0021)
Crisis* Not_Trust_Government	-0.0106** (0.0043)				
Unemployment* Not_Trust_Government				0.0038 (0.0034)	0.0038 (0.0003)
Unemployed	-0.0659*** (0.0025)	-0.0651*** (0.0025)	-0.0658*** (0.0025)	-0.0658*** (0.0026)	-0.0651*** (0.0026)
Rather bad financial situation Personal Characteristics	0.1879*** (0.0028) Yes	0.1871*** (0.0028) Yes	0.1869*** (0.0028) Yes	0.1869*** (0.0028) Yes	0.1871*** (0.0026) Yes
Ν	185295	181066	181066	181066	181066

 Table 10: Life Satisfaction, Unemployment and Trust in Government, Ordered

 Probit Regressions

Notes: Average Marginal effects. Standard errors in parenthesis. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 Reference categories: Gender: Male, Age group:15-24, Education to age:15-,Occupation:Employed, Number of children: None, Marital status: Divorced, Income: Closest to the lowest income quartile, Financial situation: Very bad. Trust in Government: Tend to trust. Crisis dummy: Year=2008 in Countries: Austria, Belgium Denmark, Germany, Greece, Iceland, Ireland, Latvia, Luxembourg, Netherlands, Spain, UK, France, Hungary, Italy, Portugal, Slovenia and Sweden.  $\Delta$ Unemployment: Unemployment (t)- Unemployment (t-1). Dependent variable: reported life satisfaction.

Tending not to trust national government has a negative impact (-0.0775) on the probability of reposting very satisfied, an effect which remains stable for all specifications. The effects of all variables except unemployment remain the same when the interaction between unemployment and not having trust in government is added. Model 24 and 25, show that the effect of unemployment on life satisfaction is negative and significant. The effect of the interaction between unemployment and low trust in government is negative but insignificant. Therefore, hypothesis 5 is confirmed only under specification 24 and 25 implying that unemployment has a negative impact on life satisfaction especially when trust in national government is low.

Table 11 shows the relationship between inflation; trust in government and life satisfaction is shown. All models control for personal characteristics and examine the last hypothesis.

		(21)	(26)	(27)	(28)	(29)
$\Delta$ Inflation (%)			-0.0015 (0.0049)	0.0000 (0.0049)	0.0088 (0.0090)	0.0087 (0.0011)
Tend not to government	Trust	-0.0762*** (0.0014)	-0.0076*** (0.0013)	-0.0076*** (0.0013)	-0.0076*** (0.0013)	-0.0076*** (0.0013)
Crisis		0.0300*** (0.0033)	0.0240*** (0.0021)			0.0240*** (0.0021)
Crisis* Not_Trust_Goverr	nment	-0.0106** (0.0043)				
Inflation Not_Trust_Goverr	* nment				-0.0128 (0.0106)	0.0128 (0.0106)
Unemployed		-0.0659*** (0.0025)	-0.0654*** (0.0025)	-0.0661*** (0.0025)	-0.0661*** (0.0125)	-0.0654*** (0.0025)
Very bad situation Personal Characte	financial eristics	0.1879*** (0.0028) Yes	(0.0023) 0.1879*** (0.0028) Yes	0.1874*** (0.0028) Yes	0.1879*** (0.0028) Yes	0.1876*** (0.0028) Yes
Ν		185295	182535	182535	182535	182535

 Table 11: Life Satisfaction, Inflation and Trust in Government, Ordered Probit

 Regressions

Notes: Average Marginal effects. Standard errors in parenthesis. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 Reference categories: Gender: Male, Age group:15-24, Education to age:15-,Occupation:Employed, Number of children: None, Marital status: Divorced, Income: Closest to the lowest income quartile, Financial situation: Very bad. Trust in Government: Tend to trust. Crisis dummy: Year=2008 in Countries: Austria, Belgium Denmark, Germany, Greece, Iceland, Ireland, Latvia, Luxembourg, Netherlands, Spain, UK, France, Hungary, Italy, Portugal, Slovenia and Sweden.  $\Delta$ Unemployment: Unemployment (t)- Unemployment (t-1).  $\Delta$ Inflation: Inflation (t)-Inflation(t-1). Dependent variable: reported life satisfaction.

Results show that the changes in inflation negatively affect the probability of being in the first category of the categorical dependent variable very satisfied. The estimated coefficient is negative but not significant. The effects of having the tension not to trust government has again (as in the previous regressions) a negative significant and strong effect on the dependent variable, but crisis has a positive effect. Model 28 includes an interaction term between inflation and the degree of trust in government which has a positive but not significant effect on life satisfaction. The changes in inflation seem not to be able to explain a change in self report life satisfaction. Therefore, it can be said that the last hypothesis is not proved to hold.

## 5. Conclusion and future research

The purpose of this research is to find a relationship between happiness and financial crises. To do so, it examines the effects of 2008 crisis as captured by GDP growth, change in unemployment rate and change in inflation rates on and life satisfaction scores and searches for a negative relationship between them. It uses ordered probit specifications with a categorical dependent variable and explores changes in macroeconomic indicators which are attributed to the crisis.

After controlling for personal characteristics, results show the crisis has positive effect on life satisfaction. Economic variables though still explain lower life satisfaction scores.

Taking output, unemployment and inflation as indicators rapidly affected during recession periods it is aimed to find how their changes affect wellbeing. The research experiments with the various economic variables in the sense that lagged forms and changes over time are regressed on life satisfaction. The first hypothesis only holds when lagged form of GDP growth is used. The next two hypotheses do not show significant results.

Most important even than the positive sign for the crisis is the effect of the economic indicators during 2008. Simultaneously controlling for personal characteristics and including the crisis dummy the effect of GDP growth, unemployment and inflation are regressed on life satisfaction. It is shown that these indicators explain possible lower outcomes on life satisfaction.

Given that not all the countries had the same consequences due to the crisis, this research goes beyond economy and adds political variables to capture political environment across various countries as an important determinant of stability during crisis episodes. The impact of the changes in economic indicators involved in this research becomes even stronger when lower trust in government is involved. Hypotheses 3, 4 and 5 test whether unemployment and inflation during crisis have an additional negative effect

on wellbeing when interacted with low trust in national government. GDPppGrowth and low trust in government indeed have negative coefficients during the crisis and therefore hypothesis 4 is confirmed. Changes in inflation are not proved significant when interacted with the political variable. On the other hand, the change in unemployment rates has a negative impact on life satisfaction during the crisis when interacted with low trust in government.

This analysis has made use of life satisfaction as a proxy for wellbeing and found significant results of the independent variables. It is shown that indeed growth, the changes in unemployment and inflation during the crisis have a negative impact on the probability for someone to state very satisfied with his or her life. Results could be also compared by using happiness instead of satisfaction. Many studies have found a positive correlation between the two (Di Tella et al., 2004) but some others suggest that they are not equally affected by various variables.

The present analysis has used a big group of variables related to demographic and personal characteristics and tested their relationship with life satisfaction. Unfortunately the exact income of individuals is not made readily available. Future research could control for the amount of income one receives and its effect of life satisfaction. Moreover, it can give insights towards the comparison of specific income levels when it comes to the effects of crisis of reported wellbeing.

This research has a relatively limited approach related to crisis identification. An important issue is that the list countries included in the bibliography is not exhaustive. The crisis also severely influenced many other European countries also in the following years (e.g. Cyprus, 2011) which could have been included.

Future research could address the above issues. Another interesting path that can be followed in the future is the impact of the crisis on social security system and how it affects wellbeing. European countries do not provide equal funding for social security and during the crisis the degree in which citizens feel protected by government funded services could have a role on self report happiness.

## 6. References

Alesina, A., Di Tella, R., & MacCulloch, R. (2004). Inequality and happiness: Are europeans and americans different? *Journal of Public Economics, 88*(9), 2009-2042.

Bénabou, R., & Tirole, J. (2000). *Self-confidence and social interactions* (No. w7585). National Bureau of Economic Research.

Bertrand, M., & Mullainathan, S. (2001). Do people mean what they say? implications for subjective survey data. *The American Economic Review*, *91*(2), 67-72.

Blanchflower, D. G., & Oswald, A. (2000). The rising well-being of the young. *Youth employment and joblessness in advanced countries* (pp. 289-328) University of Chicago Press.

Blanchflower, D. G., & Oswald, A. J. (2004). Well-being over time in Britain and the USA. *Journal of Public Economics, 88*(7), 1359-1386.

Blanchflower, D. G., & Oswald, A. J. (2008). Is well-being U-shaped over the life cycle? *Social Science & Medicine, 66*(8), 1733-1749.

Brule, G., & Veenhoven, R. (2012). Why are latin europeans less happy? The impact of hierarchy.

Clark, A. E. (2003). Unemployment as a social norm: Psychological evidence from panel data. *Journal of Labor Economics*, *21*(2), 323-351.

Clark, A. E., & Oswald, A. J. (1994). Unhappiness and unemployment. *The Economic Journal, 104*(424), 648-659.

Conlisk, J. (1996). Why bounded rationality? *Journal of Economic Literature, 34*(2), 669-700.

Csikszentmihalyi, M., & Hunter, J. (2003). Happiness in everyday life: The uses of experience sampling. *Journal of Happiness Studies, 4*(2), 185-199.

Deaton, A. (2012). The financial crisis and the well-being of americans 2011 OEP hicks lecture. *Oxford Economic Papers, 64*(1), 1-26.

Di Tella, R., & MacCulloch, R. (2006). Some uses of happiness data in economics. *The Journal of Economic Perspectives, 20*(1), 25-46.

Di Tella, R., MacCulloch, R. J., & Oswald, A. J. (2001). Preferences over inflation and unemployment: Evidence from surveys of happiness. *The American Economic Review*, *91*(1), 335-341.

Di Tella, R., MacCulloch, R. J., & Oswald, A. J. (2003). The macroeconomics of happiness. *Review of Economics and Statistics*, *85*(4), 809-827.

Diener, E. (Ed.). (2009). *The science of well-being: The collected works of Ed Diener* (Vol. 1). Springer.

Diener, E., & Seligman, M. E. (2004). Beyond money toward an economy of well-being. *Psychological Science in the Public Interest, 5*(1), 1-31.

Diener, E., Gohm, C. L., Suh, E., & Oishi, S. (2000). Similarity of the relations between marital status and subjective well-being across cultures. *Journal of Cross-Cultural Psychology*, *31*(4), 419-436.

Diener, E., Lucas, R. E., Oishi, S., & Suh, E. M. (2002). Looking up and looking down: Weighting good and bad information in life satisfaction judgments. *Personality and Social Psychology Bulletin, 28*(4), 437-445.

Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective wellbeing: Three decades of progress. *Psychological Bulletin*, *125*(2), 276.

Dolan, P., & White, M. P. (2007). How can measures of subjective well-being be used to inform public policy? *Perspectives on Psychological Science, 2*(1), 71-85.

Dolan, P., Peasgood, T., & White, M. (2008). Do we really know what makes us happy? A review of the economic literature on the factors associated with subjective well-being. *Journal of Economic Psychology, 29*(1), 94-122.

Dorn, D., Fischer, J. A., Kirchgässner, G., & Sousa-Poza, A. (2007). Is it culture or democracy? the impact of democracy and culture on happiness. *Social Indicators Research*, *82*(3), 505-526.

Easterlin, R. A. (1974). Does economic growth improve the human lot? Some empirical evidence. *Nations and households in economic growth, 89*.

Easterlin, R. A. (1995). Will raising the incomes of all increase the happiness of all? *Journal of Economic Behavior & Organization, 27*(1), 35-47.

Easterlin, R. A. (2003). Explaining happiness. *Proceedings of the National Academy of Sciences, 100*(19), 11176-11183.

Eurofound (2010a), Rose, R. and Newton, K., *Second European Quality of Life Survey: Evaluating the quality of society and public services*, Publications Office of the European Union, Luxembourg.

Eurofound (2010b), Watson, D., Pichler, F. and Wallace, C., *Second European Quality of Life Survey: Subjective well-being in Europe*, Publications Office of the European Union, Luxembourg

Eurofound (2012), Anderson R., Dubois H., Leoncikas T., and Sándor E., *Third European Quality of Life Survey - Quality of life in Europe: Impacts of the crisis*, Publications Office of the European Union, Luxembourg

Fahey, T., & Smyth, E. (2004). Do subjective indicators measure welfare? evidence from 33 european societies. *European Societies*, 6(1), 5-27.

Ferrer-i-Carbonell, A. (2005). Income and well-being: An empirical analysis of the comparison income effect. *Journal of Public Economics*, *89*(5), 997-1019.

Frank, R.H. (2002). *Microeconomics and behavior* (*5th edition*). McGraw-Hill, New York

Frey, B. S., & Stutzer, A. (2002). *Happiness and economics: How the economy and institutions affect human well-being*. Princeton University Press..

Gallie, D., & Russell, H. (1998). Unemployment and life satisfaction: A crosscultural comparison. *European Journal of Sociology*, *39*(02), 248-280.

Gerdtham, U., & Johannesson, M. (2001). The relationship between happiness, health, and socio-economic factors: Results based on swedish microdata. *Journal of Socio-Economics, 30*(6), 553-557.

Graham, C. (2005). The economics of happiness. *World Economics, 6*(3), 41-55.

Graham, C., & Felton, A. (2006). Inequality and happiness: Insights from latin america. *The Journal of Economic Inequality*, 4(1), 107-122.

Graham, C., & Pettinato, S. (2001). Happiness, markets, and democracy: Latin america in comparative perspective. *Journal of Happiness Studies, 2*(3), 237-268.

Graham, C., & Pettinato, S. (2002). Frustrated achievers: Winners, losers and subjective well-being in new market economies. *Journal of Development Studies, 38*(4), 100-140.

Greene, W. H. (2003). *Econometric analysis, 5/e* Pearson Education India.

Gudmundsdottir, D. G. (2013). The impact of economic crisis on happiness. *Social Indicators Research*, *110*(3), 1083-1101.

Helliwell, J. F. (2003). How's life? combining individual and national variables to explain subjective well-being. *Economic Modelling, 20*(2), 331-360.

Hermalin, B., & Isen, A. (2000). The effect of affect on economic and strategic decision making. *USC CLEO Research Paper*, (C01-5).

Huppert, F. A. (2009). Psychological Well-being: Evidence regarding its causes and consequences<sup>†</sup>. *Applied Psychology: Health and Well-Being, 1*(2), 137-164.

Inglehart, R. (1990). *Culture shift in advanced industrial society* Princeton University Press.

Jenkins, S. P., Brandolini, A., Micklewright, J., & Nolan, B. (Eds.). (2013). *The Great Recession and the distribution of household income*. Oxford University Press.

Johnson, W., & Krueger, R. F. (2006). How money buys happiness: Genetic and environmental processes linking finances and life satisfaction. *Journal of Personality and Social Psychology*, *90*(4), 680.

Laaksonen, E., Martikainen, P., Lallukka, T., Lahelma, E., Ferrie, J., Rahkonen, O., et al. (2009). Economic difficulties and common mental disorders among finnish and british white-collar employees: The contribution of social and behavioural factors. *Journal of Epidemiology and Community Health, 63*(6), 439-446.

Laeven, L., & Valencia, F. (2008). Systemic banking crises: A new database. *IMF Working Papers,* , 1-78.

Laeven, L., & Valencia, F. (2012). *Systemic Banking Crises Database: An Update* (No. 12/163). International Monetary Fund.

Layard, R. (2011). *Happiness: Lessons from a new science* Penguin.

Lelkes, O. (2006). Knowing what is good for you: Empirical analysis of personal preferences and the "objective good". *The Journal of Socio-Economics*, *35*(2), 285-307.

Louis, V. V., & Zhao, S. (2002). Effects of family structure, family SES, and adulthood experiences on life satisfaction. *Journal of Family Issues, 23*(8), 986-1005.

Lucas, R. E. (2005). Time Does Not Heal All Wounds A Longitudinal Study of Reaction and Adaptation to Divorce. *Psychological science*, *16*(12), 945-950.

Luttmer, E. F. (2005). Neighbors as negatives: Relative earnings and wellbeing. *The Quarterly Journal of Economics, 120*(3), 963-1002. Marks, G. N., & Fleming, N. (1999). Influences and consequences of wellbeing among australian young people: 1980–1995. *Social Indicators Research, 46*(3), 301-323.

Mastekaasa, A. (1993). Marital status and subjective well-being: A changing relationship? *Social Indicators Research, 29*(3), 249-276.

Ott, J. C. (2010). Good governance and happiness in nations: Technical quality precedes democracy and quality beats size. *Journal of Happiness Studies*, *11*(3), 353-368.

Pichler, F. (2006). Subjective quality of life of young europeans. feeling happy but who knows why? *Social Indicators Research*, *75*(3), 419-444.

Rabin, M. (1998). Psychology and economics. *Journal of Economic Literature, 36*(1), 11-46.

Reinhart, C. M., & Reinhart, V. R. (2010). *After the fall* (No. w16334). National Bureau of Economic Research.

Reinhart, C. M., & Rogoff, K. S. (2010). *From financial crash to debt crisis* (No. w15795). National Bureau of Economic Research.

Schyns, P. (2001). Income and satisfaction in russia. *Journal of Happiness Studies*, 2(2), 173-204.

Simon, H. A. (1978). Rationality as process and as product of thought. *The American Economic Review, 68*(2), 1-16.

Stuckler, D., Basu, S., Suhrcke, M., Coutts, A., & McKee, M. (2009). The public health effect of economic crises and alternative policy responses in europe: An empirical analysis. *The Lancet, 374*(9686), 315-323.

Stutzer, A. (2004). The role of income aspirations in individual happiness. *Journal of Economic Behavior & Organization, 54*(1), 89-109.

Stutzer, A., & Frey, B. S. (2010). Recent advances in the economics of individual subjective well-being. *Social Research: An International Quarterly*, 77(2), 679-714.

Thoits, P. A., & Hewitt, L. N. (2001). Volunteer work and well-being. *Journal of Health and Social Behavior*, 115-131.

Varian, H. R. (2006). Intermediate Microeconomics–A Modern Approach WW Northern & Company Inc. *New York*.

Veenhoven, R. (1989). *Did the crisis really hurt? effects of the 1980-82 economic recession on satisfaction, mental health and mortality* 

Veenhoven, R. (2000). Freedom and happiness: A comparative study in fortyfour nations in the early 1990s. *Culture and Subjective Well-being*, 257-288.

Veenhoven, R. (2009). Comparability of happiness across nations. *Journal of Happiness Studies: An Interdisciplinary Forum on Subjective Well-being,* pp. 211-234.

Veenhoven, R. (2010). How universal is happiness. *International Differences in Well-being*, 328-350.

Viinamäki, H., Hintikka, J., Kontula, O., Niskanen, L., & Koskela, K. (2000). Mental health at population level during an economic recession in finland. *Nordic Journal of Psychiatry, 54*(3), 177-182.

Warr, P. (2007). Work, happiness, and unhappiness Psychology Press.

Weinzierl, M. (2005). Estimating a relative utility function. Harvard University.

Wildman, J., & Jones, A. (2002). *Is it Absolute Income Or Relative Deprivation that Leads to Poor Psychological Well being? A Test Based on Individual Level Longitudinal Data.YSHE, University of York.* 

Winkelmann, L., & Winkelmann, R. (1998). Why are the unemployed so unhappy? evidence from panel data. *Economica, 65*(257), 1-15.

Wolfers, J. (2003). Is business cycle volatility costly? evidence from surveys of subjective well-being. *International Finance, 6*(1), 1-26.

World Health Organization. (2009). The financial crisis and global health: Report of a high-level consultation. *Geneva: World Health Organization* 

# **7. APPENDICES**

## APPENDIX A





























































### **APPENDIX B**





























































### **APPENDIX C**

#### **Regression 1**

	Coefficient	Robust standard	7	P> 7	95% Con	fidence Internal
Female	.0070275	.0031898	2.20	0.028	.0007755	.0132795
25-39	0304243	.0059733	-5.09	0.000	0421318	0187169
40-54	0284519	.0065386	-4.35	0.000	0412674	0156365
55+	.0115154	.007513	1.53	0.125	0032099	.0262406
16-19	.0824179	.0039417	20.91	0.000	.0746923	.0901435
20+	.1463433	.0047226	30.99	0.000	.1370872	.1555995
Still studying	.298072	.0503356	5.92	0.000	.199416	.3967281
No full time education	.3051459	.0509983	5.98	0.000	.205191	.4051009
Married	.0637186	.0065217	9.77	0.000	.0509363	.0765009
Separated	0054481	.0135555	-0.40	0.688	0320164	.0211201
Single or Unmarried	.0322908	.0071508	4.52	0.000	.0182755	.046306
Widowed	.0143338	.0082721	1.73	0.083	0018792	.0305468
Self-employed	0530283	.0057265	-9.26	0.000	0642521	0418045
Unemployed	158679	.0065988	-24.05	0.000	1716124	1457456
Retired	0008392	.0056373	-0.15	0.882	0118881	.0102097
Home	0211608	.005587	-3.79	0.000	0321111	0102104
Student	1652907	.0505315	-3.27	0.001	2643306	0662507
1	0086936	.0044046	-1.97	0.048	0173264	0000607
2	.0138152	.0045015	3.07	0.002	.0049924	.0226381
3	.0288616	.0069723	4.14	0.000	.0151961	.0425271
4+	.0398757	.0097861	4.07	0.000	.0206954	.059056
Closest to lowest income quartile	.0338471	.0044116	7.67	0.000	.0252005	.0424936
Closest to highest income quartile	.0398707	.0046732	8.53	0.000	.0307114	.0490301
Highest income quartile	.0866067	.0049421	17.52	0.000	.0769204	.096293

	Coefficient	Robust standard	Z	P> z	95% Coi	nfidence Internal
Female	.0068459	.001344	5.09	0.000	.0042117	.0094801
25-39	0337101	.003	-11.24	0.000	03959	0278302
40-54	0391361	.0031452	-12.44	0.000	0453007	0329715
55+	.0043931	.0034971	1.26	0.209	0024611	.0112474
16-19	.0281152	.0018103	15.53	0.000	.024567	.0316634
20+	.0986927	.0021093	46.79	0.000	.0945586	.1028268
Still studying	.002053	.0047249	0.43	0.664	0072077	.0113136
No full time education	027019	.0067246	-4.02	0.000	040199	013839
Married	.0526314	.0026976	19.51	0.000	.0473441	.0579187
Separated	.020959	.0054029	3.88	0.000	.0103696	.0315485
Single or Unmarried	.0548536	.003044	18.02	0.000	.0488875	.0608196

Widowed	0061847	.0033983	-1.82	0.069	0128452	.0004758
Self-employed	0041243	.0025162	-1.64	0.101	0090559	.0008074
Unemployed	0693505	.0025643	-27.05	0.000	0743764	0643247
Retired	0117224	.00223	-5.26	0.000	016093	0073517
Home	.0174331	.0027278	6.39	0.000	.0120868	.0227794
Student	.1275217	.0065954	19.33	0.000	.1145949	.1404485
1	.0074873	.0019773	3.79	0.000	.0036119	.0113627
2	.0328577	.0023736	13.84	0.000	.0282055	.0375099
3	.0493582	.0043706	11.29	0.000	.0407921	.0579244
4+	.0199179	.0067227	2.96	0.003	.0067417	.0330941
Rather bad financial	.1991684	.0027696	71.91	0.000	.1937401	.2045967
Rather good financial	.3564201	.0028498	125.07	0.000	.3508346	.3620056
Very good financial	.507836	.0033756	150.44	0.000	.50122	.514452

	Coefficient	Robust standard error	Z	P> z	95% Confidence	Internal
Female	.0099851	.0029237	3.42	0.001	.0042547	.0157155
25-39	0435689	.0055346	-7.87	0.000	0544165	0327213
40-54	0616734	.0060691	-10.16	0.000	0735687	0497781
55+	0229074	.0069736	-3.28	0.001	0365754	0092394
16-19	.0195492	.0037589	5.20	0.000	.0121819	.0269166
20+	.0324839	.0045744	7.10	0.000	.0235182	.0414496
Still studying	.1445497	.0464109	3.11	0.002	.0535861	.2355133
No full time education	.1523059	.0470206	3.24	0.001	.0601473	.2444646
Married	.0678998	.0060797	11.17	0.000	.0559839	.0798157
Separated	0104355	.0126936	-0.82	0.411	0353145	.0144434
Single or Unmarried	.0312579	.006678	4.68	0.000	.0181693	.0443465
Widowed	.0276076	.0076186	3.62	0.000	.0126753	.0425398
Self-employed	0021314	.0053145	-0.40	0.688	0125476	.0082848
Unemployed	128618	.0060655	-21.20	0.000	1405062	1167299
Retired	.0068875	.0052128	1.32	0.186	0033294	.0171044
Home	0051022	.0052339	-0.97	0.330	0153605	.0051561
Student	0978425	.0465443	-2.10	0.036	1890677	0066173
1	0031183	.0040485	-0.77	0.441	0110531	.0048166
2	0020825	.004095	-0.51	0.611	0101086	.0059435
3	.0016355	.0063757	0.26	0.798	0108606	.0141317
4+	.0059321	.0088436	0.67	0.502	0114011	.0232653
Closest to lowest	.041853	.0040389	10.36	0.000	.033937	.0497691
Closest to highest	.0651139	.0042879	15.19	0.000	.0567096	.0735181
Highest income	.1121401	.0045516	24.64	0.000	.1032191	.121061
Belgium	053711	.0085391	-6.29	0.000	0704474	0369746

Germany	1236026	.0066451	-18.60	0.000	1366267	1105784	
Denmark	.2647824	.0077848	34.01	0.000	.2495245	.2800402	
Spain	0769931	.0081867	-9.40	0.000	0930388	0609474	
Finland	.0061553	.0073539	0.84	0.403	0082581	.0205688	
France	1218314	.0077043	-15.81	0.000	1369316	1067312	
Great Britain	.0319809	.0078055	4.10	0.000	.0166824	.0472795	
Greece	231265	.0080589	-28.70	0.000	2470601	2154698	
Ireland	.0796729	.0095949	8.30	0.000	.0608673	.0984786	
Italy	1196365	.0080339	-14.89	0.000	1353827	1038904	
Luxembourg	.0930783	.0099692	9.34	0.000	.0735389	.1126176	
Netherlands	.1277946	.0077688	16.45	0.000	.1125681	.1430211	
Portugal	2410041	.007632	-31.58	0.000	2559626	2260456	
Sweden	.1154099	.0074356	15.52	0.000	.1008363	.1299835	

	Coefficient	Robust standard error	Z	P> z	95% Cor	ifidence Internal
Female	.0118965	.001236	9.62	0.000	.0094739	.014319
25-39	0486211	.0028289	-17.19	0.000	0541656	0430766
40-54	0772561	.0029722	-25.99	0.000	0830815	0714306
55+	0552423	.0033135	-16.67	0.000	0617366	0487479
16-19	.0221917	.0017386	12.76	0.000	.0187842	.0255992
20+	.0610783	.002022	30.21	0.000	.0571154	.0650413
Still studying	0038128	.0043738	-0.87	0.383	0123853	.0047596
No full time education	0094868	.006262	-1.51	0.130	0217601	.0027865
Married	.0685619	.002493	27.50	0.000	.0636757	.0734481
Separated	.0131627	.005017	2.62	0.009	.0033295	.0229958
Single or Unmarried	.0365642	.0028193	12.97	0.000	.0310384	.04209
Widowed	.0178118	.0031244	5.70	0.000	.0116881	.0239355
Self-employed	.0094169	.0023475	4.01	0.000	.004816	.0140179
Unemployed	0647679	.0023818	-27.19	0.000	0694361	0600997
Retired	0057011	.0020638	-2.76	0.006	0097461	0016562
Home	.0057117	.0025874	2.21	0.027	.0006405	.0107829
Student	.0937757	.0061888	15.15	0.000	.0816459	.1059056
1	.0039747	.001827	2.18	0.030	.0003938	.0075557
2	.0087029	.0021874	3.98	0.000	.0044158	.0129901
3	.0039351	.0040275	0.98	0.329	0039587	.0118289
4+	00975	.0062735	-1.55	0.120	0220458	.0025457
Rather bad financial	.1702207	.0025409	66.99	0.000	.1652406	.1752008

Rather good	.2885686	.0026561	108.64	0.000	.2833628	.2937745	
financial Belgium	0,0376	0,0043	8,7300	0,0000	0,0291	0,0460	
Germany	0,0010	0,0038	0,2700	0,7890	-0,0064	0,0085	
Denmark	0,2350	0,0048	49,3300	0,0000	0,2256	0,2443	
Spain	-0,0155	0,0042	-3,7300	0,0000	-0,0237	-0,0074	
Finland	0,0692	0,0042	16,3800	0,0000	0,0609	0,0775	
France	-0,0215	0,0043	-5,0600	0,0000	-0,0298	-0,0132	
Great Britain	0,0947	0,0042	22,6800	0,0000	0,0865	0,1028	
Greece	-0,1550	0,0043	-35,9000	0,0000	-0,1634	-0,1465	
Ireland	0,0878	0,0046	19,0700	0,0000	0,0788	0,0968	
Italy	-0,0941	0,0040	-23,2700	0,0000	-0,1021	-0,0862	
Luxembourg	0,1034	0,0057	18,2100	0,0000	0,0923	0,1146	
Netherlands	0,1484	0,0045	33,3300	0,0000	0,1397	0,1572	
Portugal	-0,1631	0,0042	-39,1400	0,0000	-0,1713	-0,1550	
Sweden	0,1239	0,0044	28,2000	0,0000	0,1153	0,1325	
Cyprus	0,0325	0,0059	5,5400	0,0000	0,0210	0,0440	
Czech Republic	-0,0364	0,0039	-9,2900	0,0000	-0,0440	-0,0287	
Estonia	-0,1021	0,0040	-25,7800	0,0000	-0,1099	-0,0944	
Hungary	-0,1557	0,0043	-36,5600	0,0000	-0,1640	-0,1473	
Latvia	-0,1290	0,0042	-31,0800	0,0000	-0,1372	-0,1209	
Lithuania	-0,1354	0,0043	-31,5800	0,0000	-0,1438	-0,1270	
Poland	-0,0565	0,0041	-13,6100	0,0000	-0,0646	-0,0483	
Slovakia	-0,0857	0,0041	-20,9700	0,0000	-0,0937	-0,0777	
Slovenia	0,0232	0,0042	5,5500	0,0000	0,0150	0,0313	
Bulgaria	-0,2283	0,0042	-54,1300	0,0000	-0,2365	-0,2200	
Romania	-0,1878	0,0043	-44,0600	0,0000	-0,1962	-0,1795	
Turkey	-0,0461	0,0049	-9,3400	0,0000	-0,0557	-0,0364	
Croatia	-0,0395	0,0045	-8,8800	0,0000	-0,0483	-0,0308	
FYROM	-0,1121	0,0049	-23,0700	0,0000	-0,1216	-0,1025	
Iceland	0,1595	0,0086	18,5800	0,0000	0,1426	0,1763	

	Coefficient	Robust standard error	Z	P> z	95% Confide	ence Internal
Female	.0100144	.0029221	3.43	0.001	.0042871	.0157417
25-39	0443097	.0055358	-8.00	0.000	0551596	0334598
40-54	0640261	.006073	-10.54	0.000	075929	0521231
55+	0269098	.0069981	-3.85	0.000	0406258	0131937
16-19	.0193485	.0037543	5.15	0.000	.0119902	.0267068
20+	.0322898	.0045732	7.06	0.000	.0233266	.041253
Still studying	.137307	.0463121	2.96	0.003	.046537	.2280771
No full time education	.132513	.0469738	2.82	0.005	.040446	.2245799
Married	.0705229	.0060765	11.61	0.000	.0586133	.0824326
Separated	0101672	.0126505	-0.80	0.422	0349618	.0146273
Single or Unmarried	.0287486	.0066792	4.30	0.000	.0156577	.0418396

Widowed	.0287592	.0076014	3.78	0.000	.0138606	.0436577
Self-employed	0018588	.0053123	-0.35	0.726	0122708	.0085531
Unemployed	1272384	.0060415	-21.06	0.000	1390795	1153973
Retired	.0069786	.0052058	1.34	0.180	0032246	.0171818
Home	0048702	.00523	-0.93	0.352	0151208	.0053804
Student	0805193	.0464701	-1.73	0.083	171599	.0105603
1	0058893	.0041234	-1.43	0.153	0139711	.0021924
2	0066457	.0043598	-1.52	0.127	0151907	.0018993
3	0039101	.0066468	-0.59	0.556	0169376	.0091175
4+	0018227	.0092025	-0.20	0.843	0198592	.0162137
Closest to lowest income quartile	.0404098	.0040364	10.01	0.000	.0324986	.048321
Closest to highest income quartile	.0638855	.0042848	14.91	0.000	.0554874	.0722837
highest income quartile	.1105413	.0045536	24.28	0.000	.1016164	.1194661
Belgium	0546393	.0085275	-6.41	0.000	0713528	0379258
Germany	1240697	.0066409	-18.68	0.000	1370858	1110537
Denmark	.2644994	.0077876	33.96	0.000	.2492361	.2797628
Spain	077215	.0081752	-9.45	0.000	0932381	0611919
Finland	.0063079	.0073573	0.86	0.391	0081121	.0207278
France	1215175	.007698	-15.79	0.000	1366052	1064297
Great Britain	.0324851	.0078096	4.16	0.000	.0171785	.0477917
Greece	2316182	.0080634	-28.72	0.000	2474221	2158142
Ireland	.0802994	.0096062	8.36	0.000	.0614715	.0991272
Italy	1195835	.0080292	-14.89	0.000	1353204	1038465
Luxembourg	.0930995	.0099778	9.33	0.000	.0735434	.1126556
Netherlands	.1281563	.0077766	16.48	0.000	.1129144	.1433982
Portugal	2409529	.0076279	-31.59	0.000	2559033	2260025
Sweden	.1160697	.0074384	15.60	0.000	.1014906	.1306487
1997	0188918	.0046821	-4.03	0.000	0280685	0097151
1998	0240699	.0045845	-5.25	0.000	0330555	0150844
1999	.0038387	.0046248	0.83	0.407	0052257	.0129031
2000	002222	.0045818	-0.48	0.628	0112022	.0067582

	Coefficient	Robust standard error	Z	P> z	95% Cor	nfidence Internal	
Female	.0012362	9.51	0.000	.0093272	.0141729		
25-39	0490796	.0028301	-17.34	0.000	0546265	0435327	
40-54	0780357	.0029743	-26.24	0.000	0838652	0722061	

55+	0560509	.0033162	-16.90	0.000	0625506	0495512	
16-19	.0225835	.0017394	12.98	0.000	.0191744	.0259926	
20+	.0624237	.002027	30.80	0.000	.0584508	.0663966	
Still studying	0040734	.004376	-0.93	0.352	0126501	.0045034	
No full time education	0186189	.0063554	-2.93	0.003	0310752	0061626	
Married	.0684148	.002495	27.42	0.000	.0635247	.0733048	
Separated	.0110947	.0050408	2.20	0.028	.001215	.0209744	
Unmarried Widowed	.0169712	.0028327	5.43	0.000	.0108414	.023101	
Self-employed	.0091062	.0023477	3.88	0.000	.0045049	.0137075	
Unemployed	0643575	.0023895	-26.93	0.000	0690408	0596741	
Retired	0064463	.0020657	-3.12	0.002	010495	0023976	
Home	.0048889	.0025894	1.89	0.059	0001863	.009964	
Student	.1010489	.006256	16.15	0.000	.0887873	.1133105	
1	.0035628	.0018275	1.95	0.051	0000191	.0071448	
2	.0081806	.0021884	3.74	0.000	.0038915	.0124698	
3	.0030831	.0040304	0.76	0.444	0048163	.0109825	
4+	0107218	.0062767	-1.71	0.088	023024	.0015804	
Rather bad	.1673655	.0025681	65.17	0.000	.1623321	.1723989	
Thancial Rather good	.2868917	.0026579	107.94	0.000	.2816824	.2921011	
Very good inancial	.3899277	.0032579	119.69	0.000	.3835423	.3963132	
Belgium	.0375653	.0043024	8.73	0.000	.0291329	.0459978	
Germany	.0007662	.0038057	0.20	0.840	0066927	.0082252	
Denmark	.2346867	.0047622	49.28	0.000	.225353	.2440204	
Spain	0152392	.0041619	-3.66	0.000	0233964	0070821	
Finland	.0686944	.0042232	16.27	0.000	.0604171	.0769718	
France	0218649	.0042508	-5.14	0.000	0301964	0135334	
Great Britain	.0944873	.004174	22.64	0.000	.0863065	.1026681	
Greece	1551655	.0043132	-35.97	0.000	1636192	1467118	
reland	.0877152	.0046067	19.04	0.000	.0786864	.0967441	
Italy	0940676	.0040445	-23.26	0.000	1019947	0861405	
Luxembourg	.1031368	.005674	18.18	0.000	.092016	.1142576	
Netherlands	.1481724	.0044547	33.26	0.000	.1394414	.1569034	
Portugal	1629804	.0041625	-39.15	0.000	1711387	1548221	
Sweden	.123709	.0043926	28.16	0.000	.1150997	.1323183	
Cyprus	.0319981	.0058696	5.45	0.000	.020494	.0435023	
Czech Republic	0367741	.0039124	-9.40	0.000	0444423	029106	
Estonia	1027357	.0039617	-25.93	0.000	1105006	0949709	
Hungary	1559994	.0042609	-36.61	0.000	1643506	1476482	
Latvia	1291936	.0041532	-31.11	0.000	1373337	1210534	
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Lithuania	1356348	.0042879	-31.63	0.000	1440389	1272306	
Poland	0567703	.0041493	-13.68	0.000	0649029	0486378	
Slovakia	0861237	.0040876	-21.07	0.000	0941353	0781122	
Slovenia	.0232765	.0041749	5.58	0.000	.0150939	.0314591	
Bulgaria	2288837	.0042205	-54.23	0.000	2371558	2206116	
Romania	1885818	.0042675	-44.19	0.000	1969459	1802178	
Turkey	0466443	.0049289	-9.46	0.000	0563048	0369838	
Croatia	0395173	.0044564	-8.87	0.000	0482517	030783	
FYROM	1108527	.0048689	-22.77	0.000	1203956	1013099	
Iceland	.1634598	.0086079	18.99	0.000	.1465886	.180331	
2007	002801	.0023417	-1.20	0.232	0073906	.0017886	
2008	0091208	.0020861	-4.37	0.000	0132094	0050321	
2009	0068529	.0020996	-3.26	0.001	010968	0027378	
2010	0053003	.0021319	-2.49	0.013	0094788	0011219	
2011	0237542	.0023273	-10.21	0.000	0283156	0191929	
2012	0132302	.0021942	-6.03	0.000	0175308	0089296	

#### TABLE 8

		Robust standard	ł			
	Coefficient	error	Z	P>z	95% Co	nfidence Internal
Female						
25-39	.0068764	.0013435	5.12	0.000	.0042432	.0095096
25-57	- 0340482	0029999	-11 35	0.000	- 039928	- 0281685
40-54	.0540402	.002////	11.55	0.000	.037720	.0201005
	0396695	.0031448	-12.61	0.000	0458333	0335058
55+						
16.10	.0038812	.0034965	1.11	0.267	0029717	.0107341
16-19	0295094	0010107	15 70	0.000	0250405	0221472
20+	.0283984	.0018107	13.79	0.000	.0230493	.0521475
	.0992917	.0021094	47.07	0.000	.0951573	.1034261
Still studying						
	.0022921	.0047229	0.49	0.627	0069647	.0115488
No full time						
education	0297124	006722	4 27	0.000	0418001	0155266
Married	020/134	.000725	-4.27	0.000	0418901	0135500
	.0533757	.0026971	19.79	0.000	.0480894	.058662
Separated						
	.0209249	.0054026	3.87	0.000	.010336	.0315138
Single o	r					
Unmarried	0547226	0020424	17.00	0.000	0497605	0606056
	.0547326	.0030424	17.99	0.000	.0487695	.0606956

Widowed	0055104	0000051	1.50	0.000	0100505	0000450
Salf amployed	0057124	.0033971	-1.68	0.093	0123706	.0009459
Sen-employed	- 0039123	0025154	-1 56	0.120	- 0088423	0010177
Unemployed	.0037125	.0025151	1.50	0.120	.0000123	.0010177
	0686233	.0025641	-26.76	0.000	0736488	0635978
Retired	0116150	000000	5.01	0.000	01500.11	0070464
Home	0116152	.002229	-5.21	0.000	0159841	00/2464
1101110	.017522	.002727	6.43	0.000	.0121772	.0228667
Student						
1	.1295795	.006595	19.65	0.000	.1166535	.1425054
1	007/999	001976	3.80	0.000	0036269	0113728
2	.0074777	.001770	5.80	0.000	.0030207	.0113720
	.0328214	.0023726	13.83	0.000	.0281712	.0374716
3						
4+	.0493024	.0043668	11.29	0.000	.0407436	.0578612
-	.02004	.0067243	2.98	0.003	.0068606	.0332194
Rather bad						
financial						
situation	1001000	0000 000		0.000	100000	2010710
Rather good	.1994229	.0027699	72.00	0.000	.1939939	.2048519
financial						
situation						
	.3558463	.0028496	124.87	0.000	.3502611	.3614314
Very good						
situation						
Station	.507901	.0033728	150.59	0.000	.5012905	.5145114
Crisis	025395	0021261	11 94	0.000	021228	029562
		.0021201	11.7 1	0.000	.021220	.02/302

## ADDITIONAL MODEL 1:

Probit estimations, crisis excluding personal characteristics

	Coefficient	Robust standard error	Z	P> z	95% C	95% Confidence Internal	
Female	0113	.0010	-10.50	0.000	0135	0092	
25-39	0506	.0017	-28.61	0.000	0540	0471	
40-54	0832	.0017	-46.64	0.000	0867	0797	
55+	0719	.0017	-42.08	0.000	0752	0685	
Crisis	.01481	.0025	5.81	0.000	.00981	.01980	

#### ADDITIONAL MODEL 2

Probit estimations, crisis in t and in t+1

Robust standard								
F 1	Coefficient	error	Z	P > z	95% Co	nfidence Internal		
Female	.0090888	.0013131	6.92	0.000	.0065151	.0116625		
25-39	0469829	.0029065	-16.16	0.000	0526796	0412862		
40-54	0534265	.0030347	-17.61	0.000	0593744	0474786		
55+	0136066	.0031379	-4.34	0.000	0197569	0074563		
16-19	.0252553	.0018078	13.97	0.000	.021712	.0287986		
20+	.0986975	.0020854	47.33	0.000	.0946101	.1027849		
Still studying	.0614316	.0038995	15.75	0.000	.0537887	.0690745		

No full time		.0911755	.0038808	23.49	0.000	.0835693	.0987818
Married		.055835	.0026946	20.72	0.000	.0505536	.0611164
Separated		.0268462	.0054523	4.92	0.000	.0161598	.0375327
Single	or	.0541025	.0030508	17.73	0.000	.048123	.060082
Widowed		0051323	.003378	-1.52	0.129	0117531	.0014884
1		.0072841	.0019913	3.66	0.000	.0033811	.011187
2		.0324721	.0023876	13.60	0.000	.0277925	.0371518
3		.0492868	.0044047	11.19	0.000	.0406538	.0579199
4+		.0177807	.006751	2.63	0.008	.0045489	.0310124
Rather bad		.2095489	.0027731	75.56	0.000	.2041137	.2149841
Rather good		.3714157	.0028243	131.51	0.000	.3658802	.3769512
Very good		.5237303	.0033491	156.38	0.000	.5171662	.5302943
Crisis t		.101286	.0538899	1.88	0.060	0043363	.2069084
Crsis t+1		0747583	.0538833	-1.39	0.165	1803676	.030851

	Coefficient	Robust standard	Z	P> z	95% Confid	ence Internal
Female	.0013469	5.20	0.000	.0043706	.0096502	
25-39	0346308	.00301	-11.51	0.000	0405303	0287313
40-54	0402957	.0031566	-12.77	0.000	0464826	0341088
55+	.0026547	.0035155	0.76	0.450	0042355	.0095449
16-19	.0282948	.0018252	15.50	0.000	.0247175	.0318721
20+	.0989073	.0021175	46.71	0.000	.0947571	.1030576
Still studying	.0034666	.0047323	0.73	0.464	0058084	.0127417
No full time education	0254708	.0067401	-3.78	0.000	0386813	0122604
Married	.0514705	.0026908	19.13	0.000	.0461967	.0567443
Separated	.0173114	.0054267	3.19	0.001	.0066752	.0279476
Single or	.0516878	.0030445	16.98	0.000	.0457207	.0576549
Unmarried Widowed	0056366	.0033987	-1.66	0.097	012298	.0010247
Self-employed	0044542	.0025227	-1.77	0.077	0093986	.0004902
Unemployed	0698489	.0025654	-27.23	0.000	074877	0648209
Retired	0120461	.0022434	-5.37	0.000	016443	0076492
Home	.0150529	.0028059	5.36	0.000	.0095535	.0205524
Student	.1267763	.0066064	19.19	0.000	.1138279	.1397246
1	.007706	.0019855	3.88	0.000	.0038145	.0115975
2	.0326476	.0023822	13.70	0.000	.0279786	.0373165
3	.049466	.004392	11.26	0.000	.0408578	.0580741
4+	.0212324	.0067374	3.15	0.002	.0080273	.0344374
Rather bad financial	.2009417	.0027951	71.89	0.000	.1954634	.20642
Rather good financial	.3556129	.0028699	123.91	0.000	.349988	.3612379
Very good financial	.5110746	.0033853	150.97	0.000	.5044396	.5177096
GDPppGrowth	0028262	.0001432	-19.74	0.000	0031069	0025455

		Robust standard				
Female	Coefficient .0070296	error .0013465	5.22 z	P> z 0.000	95% Confi .0043906	idence Internal .0096687
25-39	0348651	.00301	-11.58	0.000	0407645	0289656
40-54	0406913	.0031563	-12.89	0.000	0468776	034505
55+	.0022799	.003515	0.65	0.517	0046094	.0091692
16-19	.0286817	.0018255	15.71	0.000	.0251038	.0322596
20+	.0994423	.0021179	46.95	0.000	.0952914	.1035933
Still studying	.0036922	.0047313	0.78	0.435	005581	.0129654
No full time	0269271	.0067392	-4.00	0.000	0401357	0137185
Married	.0521298	.0026909	19.37	0.000	.0468558	.0574038
Separated	.0174193	.0054269	3.21	0.001	.0067828	.0280558
Single or	.0516798	.0030435	16.98	0.000	.0457147	.0576449
Widowed	005248	.0033982	-1.54	0.123	0119082	.0014123
Self-employed	0042293	.002522	-1.68	0.094	0091724	.0007138
Unemployed	069163	.0025657	-26.96	0.000	0741917	0641343
Retired	0119237	.0022427	-5.32	0.000	0163194	0075281
Home	.0150433	.0028053	5.36	0.000	.0095451	.0205415
Student	.1285077	.0066066	19.45	0.000	.115559	.1414563
1	.007702	.0019845	3.88	0.000	.0038123	.0115916
2	.0326278	.0023814	13.70	0.000	.0279603	.0372953
3	.0494308	.0043892	11.26	0.000	.0408282	.0580334
4+	.0213473	.0067395	3.17	0.002	.0081382	.0345565
Rather bad	.201047	.0027951	71.93	0.000	.1955687	.2065252
Rather good	.3551138	.0028697	123.74	0.000	.3494892	.3607384
Very good	.5109566	.0033836	151.01	0.000	.5043249	.5175882
GDPppGrowth	0026915	.0001435	-18.76	0.000	0029726	0024103
Crisis	.0218916	.0021328	10.26	0.000	.0177113	.0260719

		Coefficient	Robust standard error	Z	P> z	95% Cor	nfidence Internal
Female		.0082622	.0012955	6.38	0.000	.005723	.0108014
25-39		0479159	.0029719	-16.12	0.000	0537408	042091
40-54		0672932	.0031155	-21.60	0.000	0733995	0611869
55+		0365311	.0034599	-10.56	0.000	0433124	0297498
16-19		.0341422	.0017702	19.29	0.000	.0306727	.0376118
20+		.0900544	.0020289	44.39	0.000	.0860779	.0940309
Still studying		.0162935	.0046349	3.52	0.000	.0072093	.0253778
No full time		.0029984	.0066367	0.45	0.651	0100093	.016006
education Married		.0691241	.0025925	26.66	0.000	.0640429	.0742053
Separated		.01487	.0052451	2.84	0.005	.0045898	.0251502
Single o Unmarried	or	.0441139	.0029364	15.02	0.000	.0383586	.0498692
Widowed		.0179864	.0032687	5.50	0.000	.0115799	.0243929
Self-employed		.0038937	.002448	1.59	0.112	0009042	.0086917

Unemployed	0529851	.0025018	-21.18	0.000	0578886	0480816
Retired	0008829	.0021561	-0.41	0.682	0051088	.003343
Home	.0142478	.0027354	5.21	0.000	.0088865	.0196091
Student	.1074365	.0065039	16.52	0.000	.0946891	.1201839
1	.0116652	.0019234	6.06	0.000	.0078954	.015435
2	.0261592	.0023011	11.37	0.000	.0216492	.0306693
3	.0326101	.0042462	7.68	0.000	.0242877	.0409324
4+	.0224354	.0065457	3.43	0.001	.009606	.0352647
Rather bad financial situation	.1745858	.0027077	64.48	0.000	.1692787	.1798929
Rather good financial	.3086245	.0028067	109.96	0.000	.3031234	.3141255
Very good financial	.4381508	.003326	131.74	0.000	.431632	.4446695
GDPpp_log	.1049722	.0008573	122.45	0.000	.1032919	.1066524

	Coefficient	Robust standard error	Z	P> z	95% Confid	lence Internal
Female	.0082467	.0012951	6.37	0.000	.0057084	.010785
25-39	0478171	.0029709	-16.10	0.000	0536399	0419942
40-54	0672277	.0031149	-21.58	0.000	0733328	0611227
55+	0366838	.0034592	-10.60	0.000	0434638	0299039
16-19	.033742	.0017701	19.06	0.000	.0302727	.0372113
20+	.0892481	.0020301	43.96	0.000	.0852692	.0932269
Still studying	.0162149	.0046317	3.50	0.000	.0071369	.0252928
No full time	.0051504	.0066413	0.78	0.438	0078663	.0181672
education Married	.0686817	.0025927	26.49	0.000	.0636001	.0737634
Separated	.014845	.0052411	2.83	0.005	.0045727	.0251174
Single or Unmarried	.0440961	.0029364	15.02	0.000	.0383409	.0498514
Widowed	.0179275	.0032677	5.49	0.000	.011523	.0243321
Self-employed	.0038029	.0024471	1.55	0.120	0009933	.008599
Unemployed	0534704	.0025019	-21.37	0.000	058374	0485668
Retired	000839	.0021554	-0.39	0.697	0050634	.0033855
Home	.0142634	.0027339	5.22	0.000	.008905	.0196218
Student	.1050555	.006509	16.14	0.000	.0922981	.117813
1	.0117137	.0019231	6.09	0.000	.0079445	.0154829
2	.0260536	.0023003	11.33	0.000	.0215451	.0305621
3	.0323435	.0042465	7.62	0.000	.0240204	.0406665
4+	.0222848	.0065388	3.41	0.001	.0094689	.0351006
Rather bad financial	.1738668	.0027053	64.27	0.000	.1685644	.1791691
Rather good financial	.3083535	.0028052	109.92	0.000	.3028553	.3138516
Very good financial	.4368124	.0033271	131.29	0.000	.4302913	.4433335
GDPpp_log	.1067762	.000872	122.44	0.000	.105067	.1084854
Crisis	0258634	.002098	-12.33	0.000	0299754	0217514

	Coefficient	Robust standard error	Z	P> z	95% Confic	lence Internal
Female	.0065589	.0013527	4.85	0.000	.0039077	.0092101
25-39	0333512	.0030207	-11.04	0.000	0392717	0274308
40-54	0386887	.003167	-12.22	0.000	044896	0324814
55+	.0049525	.0035282	1.40	0.160	0019626	.0118677
16-19	.0275746	.0018307	15.06	0.000	.0239865	.0311628
20+	.0979195	.002127	46.04	0.000	.0937507	.1020883
Still studying	.0033044	.0047582	0.69	0.487	0060214	.0126302
No full time	0242018	.0068551	-3.53	0.000	0376376	010766
education Married	.0525247	.0027031	19.43	0.000	.0472267	.0578227
Separated	.0209933	.0054426	3.86	0.000	.010326	.0316607
Single or Unmarried	.0551313	.0030534	18.06	0.000	.0491468	.0611159
Widowed	0055821	.0034144	-1.63	0.102	0122742	.00111
Self-employed	0032897	.0025317	-1.30	0.194	0082519	.0016724
Unemployed	0686298	.0025836	-26.56	0.000	0736935	0635661
Retired	0116157	.0022529	-5.16	0.000	0160314	0072001
Home	.0164529	.0028142	5.85	0.000	.0109372	.0219687
Student	.124627	.0067136	18.56	0.000	.1114686	.1377855
1	.0074552	.0019958	3.74	0.000	.0035435	.0113669
2	.0330251	.0023925	13.80	0.000	.0283358	.0377144
3	.0494062	.0044179	11.18	0.000	.0407472	.0580652
4+	.0205027	.0067729	3.03	0.002	.0072281	.0337774
Rather bad financial	.1981891	.002801	70.76	0.000	.1926993	.2036789
Rather good financial	.355305	.0028855	123.13	0.000	.3496496	.3609605
Very good financial	.5060851	.0034104	148.39	0.000	.4994008	.5127694
dUnemployment	0027681	.0018171	-1.52	0.128	0063295	.0007933

	Coefficient	Robust standard error	Z	P>z	95% Con	fidence Internal
Female	.0066012	.0013521	4.88	0.000	.0039512	.0092513
25-39	0337076	.0030206	-11.16	0.000	0396278	0277874
40-54	0392643	.0031666	-12.40	0.000	0454707	0330579
55+	.0043595	.0035275	1.24	0.217	0025543	.0112733
16-19	.0280955	.0018311	15.34	0.000	.0245067	.0316843
20+	.098575	.0021271	46.34	0.000	.0944058	.1027441
Still studying	.0035884	.0047562	0.75	0.451	0057335	.0129103
No full time education	0259589	.0068533	-3.79	0.000	0393912	0125266
Married	.053272	.0027024	19.71	0.000	.0479755	.0585686
Separated	.0209099	.0054423	3.84	0.000	.0102432	.0315767
Single or Unmarried	.0549641	.0030517	18.01	0.000	.0489828	.0609454

Widowed	0051134	.0034131	-1.50	0.134	011803	.0015761
Self-employed	0030599	.0025308	-1.21	0.227	0080202	.0019005
Unemployed	0678739	.0025833	-26.27	0.000	0729371	0628108
Retired	0114636	.0022519	-5.09	0.000	0158773	0070499
Home	.0163894	.0028134	5.83	0.000	.0108753	.0219035
Student	.1267732	.0067131	18.88	0.000	.1136157	.1399306
1	.0074635	.0019944	3.74	0.000	.0035545	.0113726
2	.0329901	.0023914	13.80	0.000	.0283029	.0376772
3	.0493545	.0044138	11.18	0.000	.0407036	.0580054
4+	.020673	.0067747	3.05	0.002	.0073947	.0339512
Rather bad financial	.1984657	.0028013	70.85	0.000	.1929752	.2039561
situation Rather good financial	.3546942	.0028852	122.93	0.000	.3490392	.3603492
situation		000 107 1	1 10 55	0.000	100.100.1	5100151
very good financial situation	.5061687	.0034074	148.55	0.000	.4994904	.5128471
dUnemployment	0027328	.0018132	-1.51	0.132	0062867	.000821
Crisis	.0262518	.0021253	12.35	0.000	.0220864	.0304173

	<b>a m</b>	Robust standard				
Female	Coefficient .0013487	error 4.95	z 0.000	P> z .004038	95% Confid .0093246	lence Internal
25-39	0333277	.0030102	-11.07	0.000	0392276	0274277
40-54	0385652	.0031566	-12.22	0.000	0447521	0323784
55+	.0049834	.0035153	1.42	0.156	0019063	.0118732
16-19	.0274565	.0018248	15.05	0.000	.0238799	.031033
20+	.0986813	.0021197	46.55	0.000	.0945267	.1028359
Still studying	.0029252	.0047416	0.62	0.537	0063682	.0122186
No full time	0259537	.006748	-3.85	0.000	0391794	0127279
education Married	.0521181	.0026986	19.31	0.000	.0468289	.0574072
Separated	.0211705	.0054282	3.90	0.000	.0105315	.0318095
Single or Unmarried	.0544479	.0030484	17.86	0.000	.0484732	.0604226
Widowed	0057875	.0034073	-1.70	0.089	0124657	.0008908
Self-employed	0037975	.0025236	-1.50	0.132	0087436	.0011486
Unemployed	0689141	.0025682	-26.83	0.000	0739476	0638807
Retired	0119731	.0022464	-5.33	0.000	0163761	0075702
Home	.0158679	.0028047	5.66	0.000	.0103708	.021365
Student	.1261772	.0066142	19.08	0.000	.1132135	.1391409
1	.0073815	.001988	3.71	0.000	.003485	.011278
2	.0327313	.0023852	13.72	0.000	.0280564	.0374062
3	.0495142	.0044	11.25	0.000	.0408904	.058138
4+	.0207317	.0067462	3.07	0.002	.0075094	.0339539
Rather bad	.1985615	.0027878	71.23	0.000	.1930975	.2040254
Rather good	.3558603	.0028714	123.93	0.000	.3502324	.3614881
Very good	.5072821	.0033949	149.42	0.000	.5006282	.5139361
dInflation	.0012775	.0049961	0.26	0.798	0085146	.0110696

	Coefficient	Robust standard error	Z	P> z	95% Confic	lence Internal
Female	.0067228	.0013481	4.99	0.000	.0040806	.009365
25-39	0336808	.0030101	-11.19	0.000	0395805	0277811
40-54	0391342	.0031562	-12.40	0.000	0453202	0329482
55+	.0044036	.0035146	1.25	0.210	0024848	.0112921
16-19	.0279658	.0018252	15.32	0.000	.0243885	.031543
20+	.0993322	.0021199	46.86	0.000	.0951772	.1034872
Still studying	.0032198	.0047397	0.68	0.497	0060698	.0125094
No full time education	0276685	.0067462	-4.10	0.000	0408907	0144463
Married	.0528672	.002698	19.60	0.000	.0475793	.0581551
Separated	.0210877	.0054279	3.89	0.000	.0104492	.0317262
Single or	.0542817	.0030467	17.82	0.000	.0483102	.0602532
Unmarried Widowed	0053149	.0034061	-1.56	0.119	0119907	.001361
Self-employed	003566	.0025227	-1.41	0.157	0085104	.0013784
Unemployed	068149	.002568	-26.54	0.000	0731821	0631159
Retired	0118295	.0022455	-5.27	0.000	0162306	0074285
Home	.0158103	.0028039	5.64	0.000	.0103148	.0213058
Student	.1282798	.0066137	19.40	0.000	.1153172	.1412425
1	.0073949	.0019867	3.72	0.000	.0035011	.0112888
2	.0327012	.0023841	13.72	0.000	.0280285	.037374
3	.0494694	.004396	11.25	0.000	.0408535	.0580853
4+	.0208975	.0067479	3.10	0.002	.0076719	.0341232
Rather bad	.1988226	.0027881	71.31	0.000	.193358	.2042872
financial Rather good financial	.3552511	.0028712	123.73	0.000	.3496236	.3608785
Very good financial	.5073543	.003392	149.57	0.000	.5007061	.5140025
ΔInflation	.0010902	.0049594	0.22	0.826	0086301	.0108105
Crisis	.0260934	.0021244	12.28	0.000	.0219296	.0302572

### TABLE 9

		Robust standard	d			
	Coefficient	error	Z	P>z	95% Co	nfidence Internal
Female	.0088873	.0013614	6.53	0.000	.0062189	.0115557
25-39	0329257	.0030556	-10.78	0.000	0389146	0269367
40-54	040002	.0032014	-12.50	0.000	0462767	0337273
55+	0008923	.0035629	-0.25	0.802	0078756	.0060909
16-19	.0307881	.0018509	16.63	0.000	.0271603	.0344159
20+	.0960691	.0021405	44.88	0.000	.0918738	.1002643
Still studying	.0020147	.0048996	0.41	0.681	0075883	.0116177
No full time	031109	.0068346	-4.55	0.000	0445047	0177134
Married	.0507786	.0027067	18.76	0.000	.0454736	.0560835

Separated	.0180012	.0054961	3.28	0.001	.007229	.0287735
Single or	.0488931	.0030675	15.94	0.000	.042881	.0549052
Widowed	0066437	.003431	-1.94	0.053	0133684	.0000809
Self-employed	0040341	.002547	-1.58	0.113	0090262	.000958
Unemployed	0664886	.0025929	-25.64	0.000	0715705	0614067
Retired	0131385	.0022652	-5.80	0.000	0175782	0086988
Home	.0089338	.0028551	3.13	0.002	.0033379	.0145298
Student	.1297372	.0066975	19.37	0.000	.1166105	.142864
1	.0073474	.0020069	3.66	0.000	.0034138	.0112809
2	.0298259	.0024072	12.39	0.000	.0251079	.034544
3	.0441919	.0044395	9.95	0.000	.0354907	.0528931
4+	.0168103	.0068628	2.45	0.014	.0033594	.0302612
Rather bad financial situation	.1899906	.0028261	67.23	0.000	.1844516	.1955296
Rather good financial	.3387963	.002916	116.19	0.000	.333081	.3445115
Very good financial	.4887332	.0034599	141.26	0.000	.4819519	.4955146
GDPppGrowth	003012	.000145	-20.78	0.000	0032961	0027279
Trust Government	077342	.0013615	-56.81	0.000	0800106	0746735
Crisis	.0193304	.0021718	8.90	0.000	.0150738	.023587

	Coefficient	Robust standard error	Z	P> z	95% Confi	dence Internal
Female	.0088625	.0013618	6.51	0.000	.0061934	.0115316
25-39	0327087	.0030557	-10.70	0.000	0386978	0267196
40-54	0396445	.0032018	-12.38	0.000	04592	0333691
55+	0005637	.0035635	-0.16	0.874	0075481	.0064206
16-19	.0304716	.0018508	16.46	0.000	.0268442	.034099
20+	.0956124	.00214	44.68	0.000	.0914181	.0998068
Still studying	.0017826	.0049007	0.36	0.716	0078226	.0113878
No full time education	029874	.0068354	-4.37	0.000	0432711	0164768
Married	.0502047	.0027064	18.55	0.000	.0449002	.0555091
Separated	.017924	.0054965	3.26	0.001	.007151	.0286971
Single or	.0489166	.0030683	15.94	0.000	.0429028	.0549304
Unmarried Widowed	0069892	.0034314	-2.04	0.042	0137146	0002639
Self-employed	0042208	.0025476	-1.66	0.098	0092141	.0007725
Unemployed	0670768	.0025925	-25.87	0.000	072158	0619955
Retired	0132355	.0022657	-5.84	0.000	0176763	0087948
Home	.0089517	.0028559	3.13	0.002	.0033542	.0145493
Student	.1282825	.0066972	19.15	0.000	.1151563	.1414088
1	.0073519	.0020079	3.66	0.000	.0034165	.0112872
2	.0298491	.0024079	12.40	0.000	.0251296	.0345685
3	.0442369	.0044422	9.96	0.000	.0355303	.0529435

4+	.0167085	.0068623	2.43	0.015	.0032586	.0301584
Rather bad						
financial situation	.1898864	.0028262	67.19	0.000	.1843472	.1954256
Rather good financial	.3392159	.0029163	116.32	0.000	.3335	.3449317
Very good financial	.4888189	.0034615	141.22	0.000	.4820345	.4956032
GDPppGrowth	0031291	.0001446	-21.63	0.000	0034126	0028456
Trust Government	0775747	.0013614	-56.98	0.000	0802429	0749065

	Coefficient	Robust standard error	Z	P> z	95% Confid	ence Internal
Female	.0088627	.0013618	6.51	0.000	.0061937	.0115318
25-39	0327091	.0030557	-10.70	0.000	0386981	02672
40-54	0396466	.0032018	-12.38	0.000	045922	0333712
55+	0005681	.0035635	-0.16	0.873	0075525	.0064162
16-19	.0304661	.0018508	16.46	0.000	.0268386	.0340937
20+	.0956025	.0021402	44.67	0.000	.0914077	.0997974
Still studying	.0017758	.0049007	0.36	0.717	0078294	.0113809
No full time	0298745	.0068353	-4.37	0.000	0432714	0164776
education Married	.0502062	.0027064	18.55	0.000	.0449017	.0555106
Separated	.0179241	.0054965	3.26	0.001	.0071511	.028697
Single or Unmarried	.0489213	.0030685	15.94	0.000	.0429072	.0549354
Widowed	0069889	.0034313	-2.04	0.042	0137142	0002636
Self-employed	0042167	.0025475	-1.66	0.098	0092098	.0007763
Unemployed	0670767	.0025925	-25.87	0.000	0721579	0619955
Retired	0132353	.0022657	-5.84	0.000	017676	0087946
Home	.0089571	.002856	3.14	0.002	.0033595	.0145547
Student	.1282775	.0066971	19.15	0.000	.1151514	.1414037
1	.0073539	.0020079	3.66	0.000	.0034185	.0112894
2	.0298494	.0024079	12.40	0.000	.02513	.0345688
3	.0442405	.0044421	9.96	0.000	.0355341	.0529468
4+	.0167078	.0068623	2.43	0.015	.0032579	.0301577
Rather bad financial	.1898824	.0028262	67.19	0.000	.1843431	.1954217
Rather good	.3391974	.0029181	116.24	0.000	.3334781	.3449168
Very good financial	.4888074	.0034626	141.17	0.000	.4820208	.495594
GDPppGrowth	0031683	.0002561	-12.37	0.000	0036701	0026664
Trust	0776386	.0013905	-55.84	0.000	0803638	0749133
Gdp*Trust	.0000563	.0003083	0.18	0.855	0005479	.0006605

	Coefficient	Robust standard error	Z	P> z	95% Confid	lence Internal
Female	.0088873	.0013615	6.53	0.000	.006219	.0115557
25-39	0329257	.0030556	-10.78	0.000	0389146	0269367
40-54	0400022	.0032015	-12.50	0.000	0462769	0337275
55+	0008928	.003563	-0.25	0.802	0078761	.0060905
16-19	.0307875	.001851	16.63	0.000	.0271595	.0344155
20+	.096068	.0021407	44.88	0.000	.0918723	.1002638
Still studying	.002014	.0048996	0.41	0.681	007589	.011617
No full time education	031109	.0068346	-4.55	0.000	0445047	0177134
Married	.0507787	.0027067	18.76	0.000	.0454737	.0560837
Separated	.0180012	.0054961	3.28	0.001	.007229	.0287735
Single or	.0488936	.0030676	15.94	0.000	.0428811	.054906
Unmarried Widowed	0066437	.003431	-1.94	0.053	0133683	.0000809
Self-employed	0040337	.002547	-1.58	0.113	0090257	.0009582
Unemployed	0664886	.0025929	-25.64	0.000	0715705	0614067
Retired	0131385	.0022652	-5.80	0.000	0175782	0086988
Home	.0089343	.0028552	3.13	0.002	.0033383	.0145304
Student	.1297367	.0066976	19.37	0.000	.1166097	.1428637
1	.0073476	.002007	3.66	0.000	.0034139	.0112813
2	.029826	.0024072	12.39	0.000	.0251079	.034544
3	.0441923	.0044394	9.95	0.000	.0354911	.0528934
4+	.0168102	.0068628	2.45	0.014	.0033594	.0302611
Rather bad financial	.1899902	.0028262	67.23	0.000	.184451	.1955294
Rather good	.3387945	.0029178	116.11	0.000	.3330757	.3445132
Very good	.4887321	.0034611	141.21	0.000	.4819485	.4955157
GDPppGrowth	003016	.000256	-11.78	0.000	0035178	0025142
Trust Government	0773485	.0013903	-55.63	0.000	0800736	0746235
Gdp*Trust	5.69e-06	.0003076	0.02	0.985	0005973	.0006086
Crisis	.0193296	.0021721	8.90	0.000	.0150724	.0235868

	Coefficient	Robust standard error	Z	P> z	95% Con	fidence Internal
Female	.0088042	.0013589	6.48	0.000	.0061408	.0114675
25-39	0320541	.0030466	-10.52	0.000	0380253	0260828
40-54	039063	.0031907	-12.24	0.000	0453166	0328094
55+	.0006279	.0035452	0.18	0.859	0063205	.0075763
16-19	.0304126	.0018366	16.56	0.000	.0268129	.0340122
20+	.0958705	.0021326	44.96	0.000	.0916908	.1000503
Still studying	.0008039	.004894	0.16	0.870	0087881	.0103959
No full time education	0327251	.00682	-4.80	0.000	046092	0193582
Married	.0519361	.002714	19.14	0.000	.0466167	.0572555

Separated	.0218253	.005473	3.99	0.000	.0110985	.0325521
Single or	.0519745	.0030674	16.94	0.000	.0459626	.0579865
Widowed	0073643	.0034316	-2.15	0.032	0140901	0006384
Self-employed	003517	.0025411	-1.38	0.166	0084975	.0014634
Unemployed	0659275	.0025918	-25.44	0.000	0710072	0608477
Retired	0127463	.0022527	-5.66	0.000	0171614	0083311
Home	.0108872	.002778	3.92	0.000	.0054424	.0163321
Student	.1303751	.0066869	19.50	0.000	.117269	.1434811
1	.0071154	.0019998	3.56	0.000	.0031959	.011035
2	.0299601	.0024	12.48	0.000	.0252562	.034664
3	.0439907	.0044194	9.95	0.000	.0353288	.0526526
4+	.015428	.006854	2.25	0.024	.0019945	.0288615
Rather bad financial	.187986	.0028009	67.12	0.000	.1824963	.1934758
Rather good financial	.339311	.0028965	117.15	0.000	.3336341	.344988
Very good financial	.4852617	.0034505	140.63	0.000	.4784988	.4920246
Trust Government	0772137	.0013543	-57.01	0.000	0798681	0745594
Crisis	.0234813	.0021649	10.85	0.000	.0192382	.0277243

	Coefficient	Robust standard error	Z	P> z	95% Con	fidence Internal
Female	.0088116	.0013587	6.49	0.000	.0061485	.0114747
25-39	0320802	.0030461	-10.53	0.000	0380504	0261099
40-54	0390757	.0031901	-12.25	0.000	0453283	0328232
55+	.0005936	.0035447	0.17	0.867	0063538	.007541
16-19	.0303605	.0018366	16.53	0.000	.026761	.0339601
20+	.0957953	.0021326	44.92	0.000	.0916155	.099975
Still studying	.0007874	.0048933	0.16	0.872	0088033	.0103782
No full time	032712	.006819	-4.80	0.000	046077	0193469
education Married	.0519142	.0027138	19.13	0.000	.0465952	.0572332
Separated	.0218405	.0054731	3.99	0.000	.0111134	.0325676
Singleor Unmarried	.0519732	.0030671	16.95	0.000	.0459618	.0579846
Widowed	0073802	.0034314	-2.15	0.031	0141057	0006548
Self-employed	003509	.002541	-1.38	0.167	0084891	.0014712
Unemployed	0659872	.0025915	-25.46	0.000	0710665	0609078
Retired	0127467	.0022525	-5.66	0.000	0171616	0083318
Home	.010906	.002778	3.93	0.000	.0054613	.0163508
Student	.1303023	.0066858	19.49	0.000	.1171985	.1434061
1	.0071185	.0019995	3.56	0.000	.0031994	.0110375
2	.0299755	.0023998	12.49	0.000	.0252719	.034679
3	.0440193	.0044192	9.96	0.000	.0353578	.0526807
4+	.015538	.0068531	2.27	0.023	.0021061	.0289699
Rather bad financial	.1879896	.0028006	67.12	0.000	.1825005	.1934787

Rather good	.3392263	.0028964	117.12	0.000	.3335495	.3449031
financial						
Very good	.485196	.0034504	140.62	0.000	.4784333	.4919587
financial						
Trust	0762622	.0014258	-53.49	0.000	0790567	0734678
Government						
Crisis	.0300443	.0033529	8.96	0.000	.0234728	.0366158
Trust*Crisis	0106784	.0043784	-2.44	0.015	0192598	0020969

### TABLE 10

	Coefficient	Robust standard	Z	P> z	95% Confid	lence Internal
Female	.008473	.0013678	6.19	0.000	.0057921	.0111539
25-39	0316539	.0030669	-10.32	0.000	0376649	025643
40-54	0384215	.0032124	-11.96	0.000	0447178	0321253
55+	.0014309	.0035766	0.40	0.689	0055792	.0084409
16-19	.0301153	.0018579	16.21	0.000	.026474	.0337567
20+	.0951375	.0021511	44.23	0.000	.0909214	.0993536
Still studying	.0019443	.0049284	0.39	0.693	0077151	.0116037
No full time education	0295674	.0069498	-4.25	0.000	0431887	015946
Married	.0520224	.0027196	19.13	0.000	.046692	.0573528
Separated	.0220121	.0055146	3.99	0.000	.0112037	.0328205
Single or Unmarried	.0525054	.0030771	17.06	0.000	.0464744	.0585363
Widowed	0064746	.0034482	-1.88	0.060	0132329	.0002837
Self-employed	0027543	.0025569	-1.08	0.281	0077657	.0022571
Unemployed	0651381	.0026125	-24.93	0.000	0702586	0600176
Retired	0126079	.0022759	-5.54	0.000	0170687	0081472
Home	.0103705	.0028654	3.62	0.000	.0047543	.0159866
Student	.1273962	.0068032	18.73	0.000	.1140622	.1407302
1	.0070214	.0020181	3.48	0.001	.0030659	.0109769
2	.030245	.0024188	12.50	0.000	.0255042	.0349858
3	.0441618	.0044684	9.88	0.000	.0354039	.0529197
4+	.0160176	.0069045	2.32	0.020	.0024849	.0295503
Rather bad financial	.1871991	.0028341	66.05	0.000	.1816444	.1927537
Rather good financial	.3385347	.0029335	115.40	0.000	.3327852	.3442842
Very good financial	.483778	.0034871	138.73	0.000	.4769434	.4906127
∆Unemployment	0022307	.0017987	-1.24	0.215	0057561	.0012947
Trust	0766678	.0013675	-56.07	0.000	0793479	0739876
Crisis	.024178	.0021646	11.17	0.000	.0199355	.0284205

	Coefficient	Robust standard error	Z	P>z	95% Con	fidence Internal
Female	.0084257	.0013684	6.16	0.000	.0057436	.0111077
25-39	0313153	.0030671	-10.21	0.000	0373266	0253039
40-54	0378842	.003213	-11.79	0.000	0441816	0315869
55+	.0019719	.0035775	0.55	0.582	0050399	.0089837
16-19	.0296647	.0018577	15.97	0.000	.0260237	.0333058
20+	.0945543	.0021509	43.96	0.000	.0903385	.09877
Still studying	.0016456	.0049307	0.33	0.739	0080184	.0113095
No full time	0280023	.0069516	-4.03	0.000	0416272	0143775
education Married	.0513452	.0027202	18.88	0.000	.0460137	.0566767
Separated	.0221072	.0055157	4.01	0.000	.0112967	.0329178
Single or	.0526793	.0030786	17.11	0.000	.0466453	.0587133
Widowed	0069071	.0034493	-2.00	0.045	0136677	0001465
Self-employed	0029482	.0025578	-1.15	0.249	0079613	.0020649
Unemployed	0658166	.0026129	-25.19	0.000	0709377	0606955
Retired	0127323	.0022769	-5.59	0.000	0171949	0082697
Home	.0104445	.0028666	3.64	0.000	.004826	.016063
Student	.1255053	.0068037	18.45	0.000	.1121702	.1388404
1	.0070145	.0020195	3.47	0.001	.0030563	.0109727
2	.0302849	.00242	12.51	0.000	.0255419	.035028
3	.044232	.0044727	9.89	0.000	.0354657	.0529983
4+	.0158606	.0069048	2.30	0.022	.0023275	.0293938
Rather bad financial	.1869413	.0028339	65.97	0.000	.181387	.1924955
Rather good financial	.3390842	.0029339	115.57	0.000	.3333338	.3448346
Very good financial	.4837056	.00349	138.60	0.000	.4768654	.4905458
$\Delta$ Unemployment	0022664	.0018017	-1.26	0.208	0057976	.0012648
Trust Government	0769133	.0013677	-56.24	0.000	0795939	0742328

	Coefficient	Robust standard error	Z	P> z	95% Con	fidence Internal
Female	.008426	.0013684	6.16	0.000	.005744	.011108
25-39	0313212	.003067	-10.21	0.000	0373324	0253099
40-54	037887	.003213	-11.79	0.000	0441843	0315897
55+	.0019662	.0035775	0.55	0.583	0050455	.0089779
16-19	.0296674	.0018577	15.97	0.000	.0260264	.0333084
20+	.094552	.0021509	43.96	0.000	.0903363	.0987677
Still studying	.0016429	.0049307	0.33	0.739	0080211	.0113068
No full time education	0280181	.0069515	-4.03	0.000	0416429	0143933
Married	.0513369	.0027202	18.87	0.000	.0460055	.0566684
Separated	.0220979	.0055155	4.01	0.000	.0112876	.0329081
Single or Unmarried	.0526745	.0030786	17.11	0.000	.0466405	.0587084
Widowed	0069094	.0034493	-2.00	0.045	0136699	0001488

Self-employed	- 0029459	0025577	-1.15	0.249	- 007959	0020672
Unemployed	0658095	.0026128	-25.19	0.000	0709305	0606884
Retired	0127305	.0022769	-5.59	0.000	0171931	008268
Home	.0104502	.0028666	3.65	0.000	.0048317	.0160687
Student	.1255174	.0068037	18.45	0.000	.1121825	.1388524
1	.0070125	.0020195	3.47	0.001	.0030544	.0109707
2	.0302824	.0024199	12.51	0.000	.0255394	.0350253
3	.0442523	.0044728	9.89	0.000	.0354858	.0530189
4+	.0158414	.006905	2.29	0.022	.0023079	.0293748
Rather bad financial situation	.1869391	.0028339	65.97	0.000	.1813848	.1924933
Rather good financial	.3390823	.0029339	115.57	0.000	.3333319	.3448326
situation Very good financial	.4837026	.0034899	138.60	0.000	.4768625	.4905428
ΔUnemployment	0047641	.0024412	-1.95	0.051	0095488	.0000205
Trust Government	076914	.0013676	-56.24	0.000	0795945	0742334
$\Delta$ Unemployment*Trust	.0038732	.0034264	1.13	0.258	0028425	.0105889

	Coefficient	Robust standard error	Z	P> z	95% Con	fidence Internal
Female	.0084734	.0013678	6.19	0.000	.0057925	.0111542
25-39	0316597	.0030668	-10.32	0.000	0376705	0256488
40-54	0384242	.0032124	-11.96	0.000	0447203	0321281
55+	.0014254	.0035766	0.40	0.690	0055846	.0084354
16-19	.0301179	.0018578	16.21	0.000	.0264766	.0337592
20+	.0951352	.0021511	44.23	0.000	.0909192	.0993512
Still studying	.0019416	.0049284	0.39	0.694	0077178	.011601
No full time education	0295826	.0069498	-4.26	0.000	0432039	0159614
Married	.0520142	.0027196	19.13	0.000	.0466839	.0573446
Separated	.022003	.0055144	3.99	0.000	.0111949	.0328111
Single or Unmarried	.0525007	.003077	17.06	0.000	.0464698	.0585316
Widowed	0064769	.0034482	-1.88	0.060	0132352	.0002814
Self-employed	0027521	.0025568	-1.08	0.282	0077634	.0022592
Unemployed	0651311	.0026125	-24.93	0.000	0702516	0600107
Retired	0126061	.0022759	-5.54	0.000	0170669	0081454
Home	.0103761	.0028654	3.62	0.000	.0047599	.0159922
Student	.1274079	.0068031	18.73	0.000	.1140741	.1407418
1	.0070195	.0020181	3.48	0.001	.003064	.010975
2	.0302425	.0024187	12.50	0.000	.0255019	.0349832
3	.0441818	.0044685	9.89	0.000	.0354237	.05294
4+	.0159988	.0069047	2.32	0.020	.0024658	.0295317
Rather bad financial situation	.1871966	.002834	66.05	0.000	.181642	.1927512
Rather good financial situation	.3385326	.0029335	115.40	0.000	.3327831	.344282
Very good financial situation	.4837748	.0034871	138.73	0.000	.4769402	.4906094
ΔUnemployment	0046869	.0024369	-1.92	0.054	0094631	.0000893

Trust Government	0766684	.0013675	-56.07	0.000	0793486	0739883
$\Delta$ Unemployment*Trust	.0038032	.0034221	1.11	0.266	002904	.0105104
Crisis	.0241745	.0021646	11.17	0.000	.019932	.0284169

## TABLE 10

### **Regression 26**

	Coefficient	Robust standard	Z	P> z	95% Confid	lence Internal
Female	.0085707	.0013637	6.28	0.000	.0058979	.0112434
25-39	0316295	.0030564	-10.35	0.000	03762	025639
40-54	0383006	.0032019	-11.96	0.000	0445763	032025
55+	.0014726	.0035635	0.41	0.679	0055116	.0084569
16-19	.0299207	.0018516	16.16	0.000	.0262917	.0335497
20+	.0959555	.0021437	44.76	0.000	.091754	.1001571
Still studying	.001526	.0049107	0.31	0.756	0080988	.0111509
No full time	0318005	.0068451	-4.65	0.000	0452166	0183844
Married	.0516166	.0027154	19.01	0.000	.0462945	.0569388
Separated	.0220385	.0054996	4.01	0.000	.0112596	.0328174
Single or Unmarried	.0518213	.0030723	16.87	0.000	.0457998	.0578429
Widowed	00669	.0034412	-1.94	0.052	0134346	.0000545
Self-employed	0032343	.0025488	-1.27	0.204	0082299	.0017612
Unemployed	065432	.0025964	-25.20	0.000	0705208	0603431
Retired	0129998	.0022693	-5.73	0.000	0174475	0085521
Home	.0098645	.0028553	3.45	0.001	.0042682	.0154609
Student	.1293763	.0067072	19.29	0.000	.1162305	.1425222
1	.0069886	.0020103	3.48	0.001	.0030486	.0109287
2	.0299143	.0024112	12.41	0.000	.0251885	.0346401
3	.0443317	.0044493	9.96	0.000	.0356112	.0530521
4+	.0163146	.0068771	2.37	0.018	.0028358	.0297934
Rather bad financial	.1876873	.00282	66.55	0.000	.1821601	.1932145
Rather good financial	.3392248	.0029186	116.23	0.000	.3335045	.3449451
Very good financial	.4851911	.0034707	139.79	0.000	.4783885	.4919936
Inflation	0001562	.0049651	-0.03	0.975	0098876	.0095751
Trust Government	0763687	.0013634	-56.01	0.000	0790408	0736965
Crisis	.0240045	.0021638	11.09	0.000	.0197636	.0282454

	Coefficient	Robust standard error	Z	P> z	95% Confid	lence Internal
Female	.0085242	.0013643	6.25	0.000	.0058503	.0111981
25-39	0312946	.0030567	-10.24	0.000	0372855	0253037
40-54	0377704	.0032025	-11.79	0.000	0440472	0314936
55+	.0020006	.0035643	0.56	0.575	0049853	.0089865

16-19	.0294809	.0018514	15.92	0.000	.0258522	.0331096
20+	.0953771	.0021435	44.50	0.000	.0911759	.0995782
Still studying	.0012164	.004913	0.25	0.804	0084129	.0108457
No full time	0302793	.0068468	-4.42	0.000	0436988	0168597
education Married	.050938	.0027159	18.76	0.000	.0456149	.0562611
Separated	.0221319	.0055006	4.02	0.000	.011351	.0329128
Single or	.0519936	.0030738	16.92	0.000	.0459691	.0580181
Widowed	0071264	.0034422	-2.07	0.038	0138731	0003797
Self-employed	0034295	.0025496	-1.35	0.179	0084267	.0015677
Unemployed	0661176	.0025966	-25.46	0.000	0712069	0610283
Retired	0131158	.0022702	-5.78	0.000	0175653	0086664
Home	.0099331	.0028565	3.48	0.001	.0043345	.0155318
Student	.1275302	.0067078	19.01	0.000	.1143832	.1406772
1	.0069769	.0020116	3.47	0.001	.0030342	.0109195
2	.0299495	.0024123	12.42	0.000	.0252214	.0346775
3	.044395	.0044534	9.97	0.000	.0356665	.0531235
4+	.0161622	.0068774	2.35	0.019	.0026828	.0296416
Rather bad financial	.1874414	.0028199	66.47	0.000	.1819145	.1929682
Rather good financial	.3397671	.002919	116.40	0.000	.334046	.3454882
Very good financial	.4851248	.0034735	139.66	0.000	.4783169	.4919327
ΔInflation	.0000534	.004999	0.01	0.991	0097445	.0098514
Trust inGovernment	0766125	.0013635	-56.19	0.000	079285	07394

	Coefficient	Robust standard error	Z	P> z	95% Co	nfidence Internal
Female	.0085266	.0013643	6.25	0.000	.0058527	.0112005
25-39	031292	.0030567	-10.24	0.000	0372831	0253009
40-54	0377625	.0032026	-11.79	0.000	0440394	0314855
55+	.0019988	.0035644	0.56	0.575	0049872	.0089849
16-19	.0294828	.0018514	15.92	0.000	.0258541	.0331115
20+	.095375	.0021435	44.50	0.000	.0911739	.0995762
Still studying	.0012105	.0049132	0.25	0.805	0084192	.0108403
No full time	0302943	.006847	-4.42	0.000	0437142	0168745
education Married	.0509445	.0027159	18.76	0.000	.0456213	.0562676
Separated	.0221318	.0055007	4.02	0.000	.0113507	.0329129
Single or	.0519972	.0030738	16.92	0.000	.0459727	.0580217
Unmarried Widowed	0071186	.0034423	-2.07	0.039	0138654	0003719
Self-employed	0034311	.0025497	-1.35	0.178	0084284	.0015661
Unemployed	0661091	.0025966	-25.46	0.000	0711984	0610199
Retired	013102	.0022702	-5.77	0.000	0175515	0086525
Home	.009934	.0028565	3.48	0.001	.0043353	.0155327
Student	.1275535	.006708	19.02	0.000	.1144061	.1407009

1	.0069815	.0020116	3.47	0.001	.0030389	.0109242
2	.029947	.0024123	12.41	0.000	.025219	.034675
3	.04439	.0044534	9.97	0.000	.0356614	.0531186
4+	.0161706	.0068773	2.35	0.019	.0026913	.0296499
Rather bad financial	.1874352	.0028198	66.47	0.000	.1819084	.1929619
Rather good financial	.3397681	.0029189	116.40	0.000	.3340471	.3454891
Very good financial	.4851243	.0034735	139.67	0.000	.4783164	.4919321
$\Delta$ Inflation	.0088868	.0090796	0.98	0.328	008909	.0266825
Trust inGovernment	0766171	.0013635	-56.19	0.000	0792896	0739446
$\Delta$ Inflation*Trust	0126831	.0107715	-1.18	0.239	0337949	.0084286
Trust inGovernment ΔInflation*Trust	0766171 0126831	.0013635	-56.19 -1.18	0.000	0792896 0337949	0739446 .0084286

Female	Coefficient .0085731	Robust standard error .0013637	z 6.29	P> z 0.000	95% Confidence Internal .0059003 .0112459	
25-39	0316272	.0030565	-10.35	0.000	0376179	0256365
40-54	0382928	.003202	-11.96	0.000	0445687	032017
55+	.0014709	.0035635	0.41	0.680	0055136	.0084553
16-19	.0299225	.0018515	16.16	0.000	.0262935	.0335514
20+	.0959535	.0021437	44.76	0.000	.0917519	.100155
Still studying	.0015203	.004911	0.31	0.757	0081051	.0111456
No full time education	031816	.0068452	-4.65	0.000	0452323	0183996
Married	.051623	.0027155	19.01	0.000	.0463008	.0569452
Separated	.022038	.0054997	4.01	0.000	.0112589	.0328172
Single or Unmarried	.0518248	.0030723	16.87	0.000	.0458033	.0578464
Widowed	0066824	.0034412	-1.94	0.052	013427	.0000623
Self-employed	0032355	.0025488	-1.27	0.204	0082311	.00176
Unemployed	0654224	.0025963	-25.20	0.000	0705112	0603337
Retired	0129853	.0022693	-5.72	0.000	0174331	0085376
Home	.0098661	.0028553	3.46	0.001	.0042697	.0154625
Student	.1294004	.0067074	19.29	0.000	.1162542	.1425466
1	.0069934	.0020102	3.48	0.001	.0030534	.0109334
2	.0299121	.0024111	12.41	0.000	.0251863	.0346378
3	.0443268	.0044493	9.96	0.000	.0356062	.0530473
4+	.0163236	.006877	2.37	0.018	.002845	.0298022
Rather bad financial	.1876784	.00282	66.55	0.000	.1821513	.1932055
Rather good financial	.3392209	.0029185	116.23	0.000	.3335007	.3449411
Very good financial	.4851865	.0034707	139.79	0.000	.478384	.4919889
$\Delta$ Inflation	.0087997	.0089266	0.99	0.324	008696	.0262955
Trust inGovernment	0763727	.0013634	-56.02	0.000	0790448	0737006
$\Delta$ Inflation*Trust	0128389	.0106383	-1.21	0.227	0336895	.0080118
Crisis	.0240071	.0021637	11.10	0.000	.0197663	.028248