

# **Economic crisis and social trust:**

## **Reviewing the effects of economic polarisation on social and institutional confidence**

**Diego Torrente**

**University of Barcelona**

**Jordi Caïs**

**University of Barcelona**

**Catalina Bolancé**

**University of Barcelona**

### **Abstract**

The economic crisis of 2008 led to a significant erosion of trust in the countries that were hit hardest. However, whether this fall can best be explained by external economic factors or by the lack of response on the part of the institutions to civic needs and demands is unclear. This study uses the extreme case of Spain to bring new insights to this debate. Its aim is to analyse, in comparison with perceived institutional performance and other factors, the effect of increasing economic inequality and its polarisation on levels of social and institutional trust. The study examines the respective impact of these factors upon different social groups according to their degree of exposure to the effects of the crisis. It uses a simultaneous equations model to jointly examine interpersonal and institutional effects. Our results show that the social groups most severely affected by the recession lose a great deal of trust in others. We also find that polarisation of economic conditions has different effects depending on the institution. Institutional trust seems to vary according to the interest of different groups, but the economic position is an underlying factor, especially for specific segments of the population. Without calling into question the importance of institutional performance, our research sheds new light on the importance of economic polarisation and its joint impact on social and institutional trust. We suggest that, in severe economic recession scenarios, rising inequalities have a direct impact on the institutional trust of certain social groups and deteriorate a lot interpersonal confidence among the most disadvantaged.

### **Keywords**

economic crisis, inequality, institutional trust, poverty, social capital, social trust

### **Résumé**

La crise économique de 2008 a conduit à une érosion significative de la confiance au sein des pays qui ont été le plus sévèrement touché. Néanmoins, les raisons en restent encore peu claires, et cette érosion pourrait tout aussi bien s'expliquer par des facteurs économiques externes que par le manque de réponses aux besoins et aux demandes des citoyens de la part des institutions. Cet article utilise le cas extrême de l'Espagne pour jeter un éclairage différent sur ce débat. Son objectif est d'analyser l'effet de l'inégalité économique croissante et de la polarisation qu'elle exerce sur les niveaux de confiance sociale et institutionnelle, en comparant l'effet de l'inégalité économique à la performance institutionnelle perçue et à d'autres facteurs. L'article étudie l'impact respectif de ces facteurs sur les différents groupes sociaux, en fonction de leur degré d'exposition aux effets de la crise. Il utilise un modèle à équations simultanées pour analyser de façon conjointe les effets interpersonnels et institutionnels. Nos résultats montrent que les groupes sociaux les plus durement affectés par la récession ont perdu une part importante de la confiance qu'ils plaçaient dans leurs concitoyens. Nous avons également constaté que la polarisation des

conditions économiques avait différents effets en fonction de l'institution étudiée. La confiance institutionnelle semble varier selon l'intérêt des différents groupes, bien que la situation économique soit un facteur sous-jacent, en particulier pour des segments spécifiques de la population. Sans pour autant remettre en question l'importance de la performance institutionnelle, nos recherches éclairent différemment l'importance de la polarisation économique et son impact conjoint sur la confiance sociale et institutionnelle. Nous avançons l'idée que, dans le contexte d'une récession économique sévère, les inégalités croissantes ont un impact direct sur la confiance institutionnelle de certains groupes sociaux et détériorent énormément la confiance interpersonnelle des plus défavorisés.

### **Mots-clés**

capital social, confiance institutionnelle, confiance sociale, crise économique, inégalité, pauvreté

## **Introduction**

It is widely known that trust, both in other people and in public institutions, tends to deteriorate when economic conditions worsen (Brooks & Manza, 2007; Chanley et al., 2001; Polavieja, 2013; Dotti Sani & Magistro, 2016). However, in the case of institutional trust, it is not so clear whether this effect is produced directly by the economic consequences on people's lives, or indirectly due to an unsatisfactory response on the part of the institutions to increased needs and demands of the citizens (Newton & Norris, 2000; Torcal, 2014; Armingeon & Ceka, 2014). The purpose of this article is to analyse the consequences of economic inequalities and polarisation on social and institutional trust. We study the case of Spain comparing two years: 2004 and 2012. The first is four years before the 2008 economic crisis so, then, Spain was in a situation of economic boom. The second year analysed is four years after the crisis begins where an intense and rapid socioeconomic polarisation could be observed. We use the Spanish case as an extreme scenario to further test economic and institutional performance theories, as well as social and political trust connections. We wanted to test if extremely adverse economic scenarios could alter some of the theoretical assumptions on social and institutional trust. We would like to prove that the degree to which economic crises affect different social groups is an important factor in explaining their confidence attitudes. Put in another way: Political performance matters but matter differently among different social groups.

To solve these questions, we have designed out an innovative analysis. We use a simultaneous equations model, that allows us to address them. First, we measure how trust attitudes of some socioeconomic segments of the population change as a consequence of the economic crisis (Dotti Sani & Magistro, 2016). Second, we undertake a joint analysis of changes in our five dependent variables (one measuring social trust, and four measuring trust in main institutions like the parliament, the political parties, the legal system, and the police). We assume that, while interpersonal and institutional confidence are conceptually different, they are also mutually supportive (Brhem & Rhan, 1997; Rothstein, 2011; Newton & Norris, 2000; Newton, Stolle & Zmerli, 2018). Here, we wish to observe not only the effect of an economic situation on a particular type of confidence, but also how an economic recession could modify the overall picture. Our work contributes to the existing body of research in two ways. First, by comparing the effect of belonging to different economic subgroups on institutional and personal trust. There are few researches analysing its joint effect, and even less in a context of strong economic crisis. Second, by analysing the covariation of social and institutional trust in such changing context (Zmerli & Newton, 2008; Uslaner, 2002; Sønderskov & Dinesen, 2016).

Results confirm that economic inequalities, embodied in different personal situations, lead to increased polarisation in social or generalised trust. The groups hit hardest by the economic recession (low income and high unemployment) saw their social trust in other people eroded. The effect on institutional trust is more complex. Overall, institutional trust (particularly in political parties, parliament, and legal system) deteriorated with the crisis. But our analysis shows that, during the economic recession, institutional confidence varies considerably depending on the specific group. One possible explanation is that it depends increasingly on the perception that different social groups have about whether the institution is favourable or not to their interest. Although, these results seem to support the institutional performance theory, it is also true that personal economic situation affects attitudes of particular groups. In conclusion, while institutional performance seems to be important in explaining the Spanish case, the intense economic polarisation and deep inequalities caused by the crisis seem to have an effect in some segments of the population.

## **Background**

The 2008 economic crisis offers an opportunity to better understand the short-term impact of economic recession upon social trust. Since the outbreak of the crisis, levels of trust have fallen in the European countries that have been worst affected (Armingeon & Ceka, 2014; Roth, Nowak-Lehmann & Otter, 2013). The Spanish case is of particular interest. Spain underwent rapid economic growth from 2000 to 2007 (3.8% inter-annual average increase), in a period in which it was frequently recognised as one of Europe's most successful economies. However, when the crisis came, the recession had a profound impact on people's daily lives, increasing poverty, inequality and uncertainty (Laparra & Pérez, 2012; Fundación Foessa, 2014).

In Spain, the effects of the economic crisis have been far-reaching. Unemployment, which in 2007 stood at nearly 1,760,000 people (7.9% of the active population), reached a record high in 2013 with more than 6,200,000 unemployed (27.2%). Youth unemployment (the jobless under the age of 25) in that year was recorded at 960,000 people (57.2%), according to data provided by the Spanish Labour Force Survey (INE, 2013). Spain's GDP per capita fell from 105% of the European Union average in 2006 to 95% in 2013 (EUROSTAT, 2015). Public debt, which in 2007 was equivalent to 36.1% of GDP, grew to 93.4% in 2013 (Banco de España, 2013). Collectively, these trends represent a severe decline in quality of life, further confirmed by the fall in average household income from 29,634 euros per year in 2009 to 26,174 in 2013, according to the Spanish Income and Living Conditions Survey (INE, 2015). Income inequalities between Spaniards also increased sharply. The crisis affected the whole population, but the poor lost much more than the wealthy: between 2008 and 2011, the poorest 10% of the country saw their annual incomes drop by 42.4%, whilst the richest 10% saw a reduction of only 5.6% over the same period. According to the Income Inequality Update (OECD, 2014), Spain is the country with the second highest level of economic inequality in the European Union, only surpassed by the United Kingdom.

In parallel with the effects of the economic crisis in terms of increased levels of 'precariousness and inequality', a significant loss of trust was recorded in public institutions, at a level that was only surpassed by Cyprus and Slovenia, and on a par with levels in Portugal and Greece (Fernández de Guevara, Pérez & Serrano, 2015).

However, indicators of social trust and solidarity reported a degree of improvement. This can be interpreted, a priori, as constituting an interesting compensatory mechanism whereby the negative effect of the crisis is mitigated by solidarity and interpersonal connections.

Table 1 shows, descriptively, how social and institutional trust has evolved in Spain before and during the economic crisis. For example, between 2010 and 2012, trust in political institutions collapsed, at a time when the effects of the economic crisis were at their severest. The percentage of people claiming to trust Parliament between 2004 and 2012 fell from 42 to 21%. Trust in political parties was already low in 2004 (19%), and even before the economic recession presented a clear downward trend. But, during the crisis, this tendency was exacerbated: in 2012, a mere 7% of the population claimed they still trusted Spain's political parties. A great deal of trust was also eroded in the legal system. Before the crisis, there had been an upward tendency in trust levels, so that in 2006, 44% of people claimed to trust the legal system. After 2008, however, this percentage fell to reach 25% in 2012. The only institution whose prestige increased before and during the crisis was that of the police. Yet, even its levels were affected in 2012, as protests strengthened. All these movements occurred against a backdrop of harsh government economic measures and the subsequent increase in poverty and inequality.

In contrast, regardless of the specific indicator employed, levels of social trust tended to be maintained or to even rise slightly between 2004 (pre-crisis) and 2010 (during the crisis itself). A similar phenomenon has been reported by Searing in Latin American crisis (2013). In 2012, at the height of the crisis, the proportion of people claiming to trust others rose markedly. Thus, while it is no surprise that the economic crisis undermined the Spanish people's trust in their democratic institutions (Nannestad, 2008; Rothstein & Uslaner, 2005; Zmerli & Castillo, 2015), it is indeed a surprise that this erosion of trust in institutions was not accompanied by a corresponding fall in interpersonal trust (Putnam, 2000; Rahn & Transue, 1998).

**Table 1**  
**Variation of indicators of social and institutional trust in Spain (2004–2012)**  
**(In percentages)**

Distrust indicator:	2004	2006	2008	2010	2012
<i>Social:</i>					
Most people can be trusted <sup>(a)</sup>	39.3	41.3	40.1	41.1	45.7
	(1660)	(1870)	(2565)	(1880)	(1887)
Most people try to be fair <sup>(b)</sup>	44.5	44.8	45.8	43.4	50.3
	(1655)	(1864)	(2550)	(1869)	(1884)
Most of the time people are helpful <sup>(c)</sup>	28.5	27.5	31.1	34.0	35.0
	(1661)	(1870)	(2556)	(1881)	(1881)
<i>Institutional:</i>					
Parliament <sup>(d)</sup>	42.1	42.4	41.6	29.6	21.1
	(1558)	(1785)	(2376)	(1817)	(1814)
Political parties <sup>(d)</sup>	19.4	16.0	15.1	10.1	7.0
	(1613)	(1832)	(2499)	(1865)	(1870)
Legal system <sup>(d)</sup>	36.0	43.7	30.3	32.8	25.1
	(1611)	(1836)	(2518)	(1844)	(1856)
Police <sup>(d)</sup>	58.8	61.8	64.1	66.8	58.9
	(1633)	(1861)	(2562)	(1873)	(1877)

Source: European Social Survey. 2004 to 2012 waves.

Note: Answers are recorded on a scale from 0 to 10, where 0 is the highest feeling of distrust and 10 the highest feeling of trust. Scores on both variables from 0 to 4 are considered indicative of distrust, 5 is a neutral response, and scores from 6 to 10 are indicative of trust.

<sup>(a)</sup> Generally speaking, would you say that most people can be trusted. Or that you can't be too careful in dealing with people?

<sup>(b)</sup> Do most people try to take advantage of you if they get a chance or do they try to be fair?

<sup>(c)</sup> Would you say that most of the time people try to be helpful or that they are mostly just looking out for themselves?

<sup>(d)</sup> How much do you personally trust each of the institutions?

## Theoretical framework

### *Economic inequalities and trust*

There is robust evidence indicating that generalised trust (that is, trust among unrelated people) is associated with economic equality and fair opportunities (Delhey & Newton, 2005; Nannestad, 2008; Uslaner, 2002; Rothstein & Uslaner, 2005). Indeed, several authors maintain that the increasingly unequal distribution of income and wealth is responsible for a general reduction in trust (Putnam, 1993; Fukuyama, 1995; Hastings, 2018). Oishi et al. (2011) find that social trust was lower in U.S. in times when the national income inequality was higher. The main mechanism in operation here seems to be that inequality increases the social distance between individuals, making them believe they have fewer interests in common and, in the medium-term, this results in the development of different subcultures (Fairbrother & Martin, 2013; Rothstein, 2011). For example, upwardly mobile social groups experience increased levels of trust, and *vice versa* (Li, Savage & Warde, 2008). At the individual level, there is also evidence that situations of economic difficulty, such as unemployment, are associated with increased distrust (Irvani & Dindar, 2011). Individual perceptions of income inequality affect generalised trust and the willingness to cooperate with others (Gallego, 2016). Shortly, there is a broad consensus in the literature regarding the importance of inequality in explaining social distrust, and the opposite is also true. Bergh and Bjørnskov (2014), for example, find that low levels of social trust have a more direct impact on inequality and low economic development.

Institutional trust is an individual expectation that the given institution will produce positive outcomes (Levi & Stoker, 2000). Since the 1980s, in Western countries, there was a modest but significant erosion of confidence in the legal system, police and, particularly, in political and representative institutions (Newton & Norris, 2000). Individual economic well-being as well as subjective evaluations of the national economy are strongly and positively associated with trust in institutions (Catterberg & Moreno, 2006). Countries with high levels of inequality suffer from a significant lack of trust in their institutions (Zmerli & Castillo, 2015). Inequalities are negatively associated with political trust no matter whether they are measured by objective or subjective indicators (Zmerli & Castillo, 2015). Moreover, perceived salience of inequality has a political trust-eroding effect that suggest the existence of a norm of fairness among the citizenry (Chi & Kwon, 2016). Levels of institutional trust also decreased after the 2008 crisis in transitional countries, while the degree of interpersonal trust increased (Habibov, 2015). Trust in the police are significantly correlated with wealth (GDP) and income inequality (Mitar, Kurdija & Azman, 2013).

Some of the most recent studies of the effects of the 2008 crisis support the central role played by the economic variables. Using data from Americas Barometer Survey, Zizumbo-Colunga et al. (2010) compared the level of interpersonal trust in the US before and after the crisis and found a considerable reduction. Similar to Spain, trust in institutions decreased substantially in Greece, but social trust remained stable or even slightly increased (Ervasti, Kouvo & Venetoklis, 2019). Trust in national governments and politics declined and, parallelly, also confidence in the EU (Armingeon & Ceka, 2014; Roth, 2009). Income inequality negatively affects trust in European Institutions before the crisis, but it becomes exacerbated after it. Inflation and unemployment significantly affect trust in all European Institutions after the crisis (Bonasia, Canale, Liotti et al., 2016). The rise in unemployment in Greece, Portugal, Ireland, and,

especially, in Spain, contributed markedly to a pronounced fall in institutional trust (Roth, Nowak-Lehmann & Otter, 2013). Trust in the European Parliament also fell in the peripheral European countries. This decline was more pronounced among subjects of lower social status (Dotti Sani & Magistro, 2016). As a result of the EU's economic adjustment programme, citizens in crisis-hit countries appear to have become 'detached' from their democratic political system (Armingeon, Guthmann & Weisstanner, 2016). Nevertheless, in this regard, other studies stress the importance of institutional performance (Newton & Norris, 2000; Torcal, 2014; Armingeon & Ceka, 2014). That's why confidence is likely to be randomly distributed among various personality types and socioeconomic groups. Institutionalists also denied economic hardship explanations because loss of confidence affects mainly public institutions and not private ones (Newton & Norris, 2000).

The effects of economic inequalities on institutional and social trust have generally been studied separately. Yet, there is sufficient evidence to suggest that, at the national level (if not at the individual level), interpersonal trust and confidence in institutions are associated (Brehm & Rahn, 1997; Newton & Norris, 2000; Rothstein, 2011; Searing, 2013; Newton, 2001). Western nations that enjoy a high level of social trust also tend to enjoy a relatively high level of confidence in political institutions (Zmerli & Newton, 2017). More specifically, social and political trust tend to be more associated in countries with good governance indicators (Newton, Stolle & Zmerli, 2018). While conceptually different, the two variables appear to be indirectly connected: interpersonal trust can help build effective social and political institutions, which can help governments perform effectively, which in turn encourages confidence in civic institutions (Newton & Norris, 2000). Decline in associational memberships and interpersonal relationships lead to disengagement in the political process (Putnam, 1993). In short, from an institutional performance perspective, the two would appear to be mutually supportive (Brehm & Rahn, 1997; Rothstein, 2011).

Integrating previous discussions, it can be held that economic inequalities have a negative effect both in social and institutional trust. Although, findings for social trust are not completely consistent. Recent research also finds a strong relationship between 2008 economic crisis, economic hardship, rising inequalities, and high rates of institutional distrust (particularly, in political institutions). Despite these evidences, institutional performance theories (see later on) seem to have higher explanatory capacity, even in crisis contexts (Torcal, 2014, 2017). However, institutional theories support a connection between social and institutional trust. But Spain or Greece experience dramatic reductions in political institutional trust while social trust indicators remain consistent or improve a little. To clarify these contradictory facts, our research considers the joint impact of inequalities in social and institutional trust, before and during the recession period.

#### *Other covariates of trust*

Besides the prevailing socioeconomic conditions, other factors may also influence levels of social and institutional trust and need to be taken into account when explaining variations in trust. Indeed, the literature identifies four other major factors that can strengthen or weaken trust levels (Nannestad, 2008). These factors are (a) the performance of institutions; (b) the degree of development of civil society; (c) the

degree of community cohesion; and (d) social values and culture. In the following paragraphs, we summarise the main findings on how they might influence confidence.

The *quality of public institutions and their performance* affect levels of trust (Rothstein, 2011; Newton & Norris, 2000; Richey, 2010). Lipset and Schneider (1987) stressed that the level of institutional trust was most closely related to the influence that the institution's actions had over the economic wellbeing of a given individual. Other authors, such as Kramer (1983), indicate that the relative success and prestige of the State are also central in determining the level of trust people place in their democratic institutions. From an institutional perspective, an effective State creates an environment that also encourages general trust, more so than participation in civil society or even the level of equality (Robbins, 2011; Newton & Norris, 2000). On a comparative level, there is evidence to support these ideas. Countries that have a solid legal structure and enjoy an effective protection of property can conduct economic transactions more easily because the mechanisms that generate social trust are more fluid (Buskens, 1998; Berggren & Jordahl, 2006). Societies that have experienced a rapid process of social and economic transformation, such as many Eastern European countries, tend to have less confidence in their fellow man. This can be attributed to the fact that social change has often affected the personal circumstances of given individuals, and also because it becomes imperative to redefine the role of institutions in such contexts (Delhey & Newton, 2003).

The degree of *development of civil society* has received enormous attention. The existence of mature civil societies is a reflection of, but also a condition for, flourishing mutual trust. Putnam (1993) notes that individuals learn civic virtues and how to trust within the framework of their personal relationships, mostly from those into which they enter voluntarily. Reciprocal exchanges inspire greater trust and emotional attachment when they are spontaneous than when they are negotiated (Molm, Takahashi & Peterson, 2000). Individuals with a richer network of social relationships tend to place more trust in others than do those who live more isolated lives. Thus, people who have enjoyed greater success in life tend to trust others more readily or, at least, they are more inclined to trust others owing to their own positive personal experiences (Delhey & Newton, 2003; Buskens, 1998). Furthermore, an important connection exists between levels of social trust and civic participation. As the groups and organisations of civil society mediate between citizens and the state, this increased social capital, in turn, leads to more effective public institutions (Newton & Norris, 2000).

The degree of social *cohesion* is another factor that needs to be considered. A bi-directional relationship exists between social order and trust (Delhey & Newton, 2005), with individuals demonstrating greater trust when they can expect a just, stable social framework, and *vice versa* (Misztal, 1996). Delinquency (Halpern, 2001; Thomé & Torrente, 2003; Olivera, 2015), or the fear of it (Walklate, 1998; Torrente, 2001), also has an impact on social trust. Finally, some studies have demonstrated the importance of social cohesion and the effectiveness of informal social control (collective efficacy) in the establishment of community safety (Sampson & Raudenbush, 1999). Social trust also mitigates risk perception (Frewer, 1999; Siegrist, Gutscher & Earle, 2005; Siegrist, Cvetkovich & Roth, 2000).

*Cultural theories* suggest that *social values* influence the degree to which individuals trust one another, although these effects are seen only in the medium- and long-term. For example, Rahn and Transue (1998) revealed that the rapid growth of

materialistic values among young North Americans in the 1970s and early 1980s reduced their level of trust in other people. Putnam (2000) also points to a decline in social trust in the United States and links this with a change in daily lifestyle, citing a lack of spare time, the incorporation of women into the labour market, increasing city size and individual anonymity, mobility facilitated by the mass use of cars and the influence of technology and communication media as factors. Individual and collective levels of optimism are also related to levels of trust (Uslaner, 2002). From this perspective, and in the long-term, trust in institutions is based on a system of shared values and a framework of interpersonal trust (Uslaner, 2002; Citrin, McClosky, Merrill Shanks & Sniderman, 1975).

Two methodological issues need to be addressed if reliable conclusions are to be reached about the link between economic hardship and distrust. First, most studies undertake comparative analyses in a given point of time, but only a few consider different time moments, or are longitudinal (Fairbrother & Martin, 2013; Armingeon & Guthmann, 2014; Armingeon, Guthmann & Weisstanner, 2016; Caïs, Folguera & Formoso, 2014). Moreover, many of these studies were conducted in times of relative economic stability and not in situations of acute crisis. More specifically, the results of cross-national studies, based on state-level indicators, may be influenced by other cultural and historical factors, whereas longitudinal studies measuring variations in trust at different points in the economic trajectory of a single country are more reliable in this respect (Fairbrother & Martin, 2013). Second, the effect of inequality on attitudes of distrust should be more visible among the disadvantaged segments of society. Thus, in order to obtain more reliable evidence, variations in trust need to be studied in a disaggregated fashion in different segments of the population (Dotti Sani & Magisgtrö, 2016).

### **Objectives, hypothesis and methodology**

The main objective of this study is to analyse the joint effect of intense economic inequalities and polarisation on social and institutional trust. The specific case of Spain is examined during the 2008 crisis. The intensity of the recession experienced in that country and its severe consequences will reveal more clearly this relationship. Our aim is to demonstrate the veracity of our two hypotheses: (1) We expect that an increase in economic inequalities leads to increased polarisation in social and institutional trust between different social groups; (2) We expect that economic factors gain greater significance, in relation to perceived institutional performance and other contributing factors, in explaining fluctuations in levels of institutional and social trust. In other words, the degree to which a crisis affects different social groups would be a dominant factor in explaining the attitudes of these groups to trust. The data were obtained from the second and sixth editions of the European Social Survey (ESS), for which the sample sizes were 1,663 (ESS2) and 1,889 (ESS6), with individuals over the age of 15. The sampling method used is a two-stage stratified probability sampling. The fieldwork was carried out between September 2004 and January 2005, and between January and May 2013.

The objectives and hypothesis of this study make it necessary to measure variations in the explanatory capacity of the different factors impacting social and institutional trust over time (Fairbrother & Martin, 2013). Economic polarisation among some groups must also be measured. In order to capture ‘the effect of the crisis’, we



employ a model using simultaneous equations, considered at two distinct moments in time. Specifically, we compare the years 2004 (pre-crisis) and 2012 (during the crisis). We chose these years because of their importance as economic points of reference: In 2004 the Spanish economy was at the height of its growth, while in 2012 (just 8 years after) it was in a trough of recession. We discard a longer longitudinal design to focus on the effects of a sudden breakdown in the economy. Various economic indicators are used as explanatory variables. The model's parameters are calculated in relation to a reference category (for example, the unemployed vs. the employed), which allows us to compare the variation in effects between the two years, and to generate observations on the consequences of inequality.

The model employs five indicators as dependent variables: one for social trust and four for institutional trust. The first is the degree to which the surveyed subject 'believes they can trust others'. This indicator discriminates better than others present in the survey ('Most people try to be fair' and 'Most of the time people are helpful').<sup>1</sup> The rest measure the level of trust expressed in four institutions representing the political order (parties and Parliament) and the normative order (the legal system and the police). Newton, Stolle and Zmerli (2018) hold that more impartial institutions (like police, courts or civil services) capture more confidence than partial ones (like government, parliament, or political parties). In this way, we capture different dimensions of institutional trust.

The five variables of trust, originally measured on a scale of 0 to 10, are dichotomised with 5 as the cut-off point. Considering that we have ordinal dependent variables, responses can be rated, but the distance between responses is not measurable, i.e. the difference between responses is not homogeneous for different interviewees. Therefore, we need to consider that we have discrete ordinal variables (see Sullivan & Artino, 2013, for an interesting discussion about scale data type). So, we note that the original variables cannot be analysed as a normal multivariate curve; as a result, the structural equation model can't be estimated using these as dependent variables. Furthermore, considering that we have discrete ordinal dependent variables, if our aim is to analyse both the individual and simultaneous behaviour, the available sample does not have sufficient data to represent the effects of the explanatory variables in 3,003 possible combinations of discrete values in the five original dependent variables. Therefore, although grouping the scale of 0 to 10 can be interpreted as a loss of information, it is fundamental to identify the effects of the explanatory variables on different type of individuals in a multivariate model in a simple way that guarantees the significance of the results. Given that it is difficult to justify the many various alternatives, which are available when aggregating the original scale, we are addressing this difficulty by simplifying the process and forming two groups – below 5 and equal to and above 5. The selection of 5 as the cut-off point is based on the fact that in 2004 the means and median of the variables in the original scale are close to 5 and, although in 2012 these means had tended to decline, except for the trust in other people, we maintained the same cut-off point to have the same reference in both years. In short, for each variable we differentiate the individuals located below the centre of the scale of the rest that form a total of 62 possible combinations of alternative responses. In addition, Uslaner (2018) believes that this measure, in a dichotomous format, is the most valid, and should not be combined with other measures of misanthropy.

---

<sup>1</sup> In addition, Uslaner (2018) believes that this measure, in a dichotomous format, is the most valid, and should not be combined with other measures of misanthropy.

Several indicators of economic polarisation are considered as the independent variable (Rothstein, 2011). As an indicator of income, the surveyed subject's opinion of whether their income is sufficient to live comfortably is used. Being unemployed is a further factor we incorporate into the model (Iravani & Dindar, 2011). Two further indicators are added as measures of economic uncertainty: the source of the household's main income and the subject's category of work contract.

The economic crisis may impact trust not only in terms of rising inequalities, but it may also result in the deterioration, for instance, of social capital and social values. To control these effects, the design incorporates various indicators related to factors identified in the theoretical framework. As a variable of participation in civil society, the model indicates whether the subject has collaborated with a tertiary sector organisation or similar (Putnam, 1993). Likewise, tolerance is a social value linked with trust (Putnam, 2000); for this reason, the model uses tolerance of immigration as a control element. Delinquency is often used as an indicator of the level of social cohesion (Halpern, 2001; Walklate, 1998); therefore, the experience of having been the victim of a robbery in the street or a burglary is incorporated into the model.

The degree to which institutions are perceived to respond to citizens' expectations is an important factor for the construction of social trust (Torcal, 2014); but, unfortunately, the ESS does not include any questions about perceived institutional performance in its 12<sup>th</sup> wave. We initially included 'satisfaction with democracy' as a proxy indicator. As we expected, this variable has a significant effect on the five indicators of confidence in the two years analysed (see Table A1 in the appendix). But also, we observe that it presents endogeneity problems and, considering that it does not alter markedly the results, we finally discard it. We overcome this inconvenient considering whether confidence variations among subgroups are distributed in a random or orderly manner according to their economic situation. This will allow us to support, respectively, institutionalist or economic thesis (Newton & Norris, 2000). Equally, the degree to which social and institutional trust covaries before and during the crisis would also give support to institutional performance explanations (Newton & Norris, 2000; Newton, Stolle & Zmerli, 2018). Finally, some key socio-demographic variables are also incorporated, including gender, age, level of education, place on political spectrum (left-wing or right-wing), whether the subject was born in Spain or not, and the degree of religiosity.

In conducting the data analysis, the model considers apparently related simultaneous equations, which take into account the fact that the dependent variables are dichotomous. All in all, however, the model allows us to analyse social and institutional trust, and how they interact with each other, in a comprehensive manner.

In this study, we are interested in analysing five indicators of trust, where  $Y_j^*$ ,  $j = 1, \dots, 5$  are the five continuous random variables whose values measure the degree of trust in  $j$ . Our objective is to consider the following multivariate model consisting of five related regression equations through their random errors:

$$Y_1^* = x' \beta_1 + \varepsilon_1$$

$$Y_2^* = x' \beta_2 + \varepsilon_2$$

$$Y_3^* = x' \beta_3 + \varepsilon_3$$

$$Y_4^* = x' \beta_4 + \varepsilon_4$$

$$Y_5^* = x' \beta_5 + \varepsilon_5$$

where  ${}^2x = (x_1, \dots, x_k)'$  is the vector of explanatory variables, which in our models are the same for each dependent variable, although they could be different;  $\beta_j = (\beta_{j1}, \dots, \beta_{jk})'$ ,  $j = 1, \dots, 5$ , are the vectors of parameters associated with the explanatory variables; and  $\varepsilon_j$ ,  $j = 1, \dots, 5$  are random errors that are distributed as standard normal and are correlated to each other.

In practice, the level of trust,  $Y_j^*$ , cannot be measured as a continuous variable. This is because, in our case, individuals are asked to locate themselves on a subjective scale between 0 and 10. This means that the methods used to estimate the parameters of the model defined in (1), which are based on the idea that the joint distribution of the dependent variables is a multivariate normal distribution, do not maintain their optimal properties.

Modelling the univariate or multivariate behaviour of five categorical or ordinal variables is extremely difficult and requires especially large samples to guarantee that all categories (in our case 11) have enough sample information. For this reason, we chose to simplify the problem and to use a model with binary dependent variables that measure whether individuals trust or do not trust other people and institutions, considering that in Spain a score of five or above is believed to be a 'pass'.

For  $Y_j$ ,  $j = 1, \dots, 5$ , the levels of trust measured are:

$$Y_j = \begin{cases} \geq 5 & \text{if } Y_j^* > 0 \\ < 5 & \text{if } Y_j^* \leq 0 \end{cases}, j = 1, \dots, 5.$$

In addition, if the level of trust indicated is five or more, the following binary variables are defined:

$$y_j = \begin{cases} = 1 & \text{if } Y_j^* > 0, \text{ the individual trusts } j \\ = 0 & \text{if } Y_j^* \leq 0, \text{ the individual doesn't trust } j \end{cases}, j = 1, \dots, 5.$$

Finally, we model the collective probability of the individual trusting all five items under analysis. This model, the Probit multivariate model, in our case is expressed as follows:

$$P(y_1 = 1, y_2 = 1, y_3 = 1, y_4 = 1, y_5 = 1) = \Phi_5(x' \beta_1, x' \beta_2, x' \beta_3, x' \beta_4, x' \beta_5; R) \quad (1)$$

where  $\Phi_5(\cdot; R)$  is the cumulative probability function of a multivariate standard normal (dimension 5), with a correlation matrix of  $R$ .

It is important to note that if  $R$  is not an identity and it presents positive correlations (as it does in our case), we underestimate the standard errors of the estimated parameters when using univariate estimations for each dependent variable. When the standard errors are underestimated, individual inference is affected, leading us to conclude that a parameter is non-zero when, in fact, it is not.

---

<sup>2'</sup> Indicates the transpose of the vector.

The estimation of the vectors of parameters  $\beta_j = (\beta_{j1}, \dots, \beta_{jk})'$ ,  $j = 1, \dots, 5$  is conducted by maximising the logarithm of the likelihood function of the model. Greene (1999) has described this process in detail. The interpretation of the parameters under consideration,  $\hat{\beta}_j = (\hat{\beta}_{j1}, \dots, \hat{\beta}_{jk})'$ ,  $j = 1, \dots, 5$  is completed in the same way as if five univariate and independent Probit or Logit models were being estimated.

In order to estimate the model specified in (1), we cleaned the raw data and eliminated observations with no values among the explanatory variables included in the model. By so doing the sample sizes fell to 1,155 individuals in 2004 and 1,518 in 2012. After this data refinement, the weighting of the observations in the sample were corrected in such a way to guarantee the representativeness of the original sample. Furthermore, given that we only had information for all observations in the original sample about gender and age, we used these two variables to ensure that its distribution before and after the refinement process did not change significantly. Besides, we analysed all variables included in the model and checked that all the categories were sufficiently representative.

## Results

In this section, we present the descriptive statistics and the estimation results of the multivariate model specified in (1). Table 2 shows the mean and the standard deviation (STD) of the dependent variables in our multivariate model. We tested the significance of the variations of means before and during the economic crisis. Trust in the parliament, the political parties, the legal system and the police all fall significantly (the first three at the 1% and the last at the 5% confidence levels). Conversely, trust in other people increases slightly between 2004 and 2012.

**Table 2**  
Descriptive analysis of the dependent variables

Variables:	2004			2012		
	N	Mean	STD	N	Mean	STD
Trust in other people*	1155	0.676	0.469	1518	0.705	0.457
Trust in Parliament***	1155	0.719	0.451	1518	0.381	0.486
Trust in Political Parties***	1155	0.442	0.498	1518	0.147	0.355
Trust in the Legal System***	1155	0.598	0.492	1518	0.389	0.488
Trust in the Police**	1155	0.786	0.411	1518	0.757	0.430

Source: European Social Survey 2004 and 2012 waves.

Notes: Confidence levels: \*10%, \*\*5% and \*\*\*1%.

The explanatory variables included in our multivariate model are described in Table 3. We also test the statistical significance of the mean differences of these variables recorded before and during the crisis. Given the changes in the distributions of three of these variables, namely 'Feeling about household's income', 'Unemployment within last 5 years' and 'Main source of household's income', we detect a clear economic deterioration and greater uncertainty. Specifically, between 2004 and 2012 the number of people living without financial difficulties decreases while people living with difficulties increases. This is accompanied by an increase in unemployment in the last five years. As for the sources of household income, earnings based on employment decrease at the expense of unemployment benefits and social assistance. This is accompanied by an increase in the number of pensioners. Consequently, a marked fall (from 47.5 to 6%) in satisfaction with the state of the economy was registered. All this implies greater economic precariousness and uncertainty in 2012 with respect to 2004.

Cohesion and social order, measured by the indicator ‘Victim of burglary or assault in the last 5 years’, decreased slightly, while, in contrast, civic participation increased. Finally, given the gap in the period analysed, some socio-demographics characteristics had changed, and we include these as control variables.

**Table 3**  
**Descriptive analysis of explanatory variables in the multivariate model**

Variables:	2004		2012	
	Mean	STD	Mean	STD
Feeling about household’s income: Living without difficulties***	0.392	0.490	0.267	0.44
Feeling about household’s income: Living with fair income	0.454	0.499	0.440	0.49
Feeling about household’s income: Living with difficulties***	0.154	0.362	0.293	0.45
Unemployment within the last 5 years***	0.136	0.344	0.238	0.42
Main source of household income: Employed***	0.649	0.479	0.554	0.49
Main source of household income: Self-employed	0.153	0.361	0.140	0.34
Main source of household income: Pension**	0.185	0.389	0.220	0.41
Main source of household income: Unemployed***	0.009	0.093	0.054	0.22
Main source of household income: Social assistance***	0.001	0.034	0.017	0.12
Main source of household income: Investment or other***	0.004	0.060	0.015	0.12
Employment contract duration: Unlimited	0.465	0.500	0.477	0.50
Employment contract duration: Temporary	0.191	0.395	0.180	0.38
Employment contract duration: No contract	0.050	0.219	0.053	0.22
Satisfaction with the state of the economy in the country***	0.475	0.501	0.060	0.23
Tolerance: Immigrants make the country a better place to live	0.423	0.496	0.438	0.49
Victim of a burglary or an assault in the last 5 years**	0.280	0.450	0.309	0.46
Worked in a civic organisation or an association in the last 12 months***	0.197	0.399	0.245	0.43
Gender (1=Men, 0=Women)	0.531	0.501	0.509	0.50
Age***	43.110	17.580	46.746	17.22
Education level: Without studies***	0.182	0.387	0.103	0.30
Education level: Primary	0.151	0.359	0.161	0.36
Education level: Secondary***	0.449	0.499	0.309	0.46
Education level: University***	0.218	0.414	0.173	0.37
Religiosity: Not religious**	0.156	0.364	0.188	0.39
Religiosity: Moderately religious***	0.520	0.501	0.460	0.49
Religiosity: More religious*	0.324	0.470	0.352	0.47
Born in Spain***	0.943	0.233	0.899	0.30
Political scale self-placement: Centre***	0.481	0.501	0.398	0.49
Political scale self-placement: Left***	0.283	0.452	0.343	0.47
Political scale self-placement: Right*	0.236	0.426	0.259	0.43

Source: European Social Survey 2004 and 2012 waves.

Notes: Confidence levels: \*10%, \*\*5% and \*\*\*1%.

The results for the two multivariate models, before (year 2004) and during (year 2012) the crisis, are presented in Table 4.<sup>3</sup> The table uses two types of outcome: the estimated parameters and the significance levels of the explanatory variables before and during the economic crisis, and the significance levels of the test of differences between these parameters.<sup>4</sup> Estimated parameters are analysed considering both the signs and the significance levels.<sup>5</sup> We can observe some changes in the effects of some variables before and during the crisis. Moreover, these changes differ between the five trust indicators analysed as dependent variables. If we consider the variable ‘Feeling about household’s income’, our results show that individuals living with more financial difficulties are more distrustful than those living more comfortably. In 2012, suffering from economic difficulties produces a significant reduction in social trust. A negative relationship is also found in 2004 for ‘Trust in the legal system’ and ‘Trust in the police’, though this disappears in 2012. From the previous results, we deduce that income hardship led to an erosion of trust in other people during the crisis. In contrast, trust in legal institutions lost its negative effect during the crisis. If we analyse the estimated parameters associated with ‘Unemployment within last 5 years’, the results are very similar to those above, although, in this case, the statistical test of the difference between parameters was not conclusive.

Table 4  
Parameter estimation of the 2004 and 2012 models, and test of equality between them (Diff.)

Variables:	Trust in other people			Trust in Parliament			Trust in Political Parties			Trust in the Legal System			Trust in the Police		
	2004	2012	Diff.	2004	2012	Diff.	2004	2012	Diff.	2004	2012	Diff.	2004	2012	Diff.
Intercept	-0.716**	0.520**	***	-0.574*	-0.191		-1.372***	-1.715***		-0.158	-0.207		0.352	0.252	
Feeling about household's income: Living without difficulties	0	0		0	0		0	0		0	0		0	0	
Feeling about household's income: Living with fair income	0.072	-0.102	*	-0.056	0.016		0.079	-0.031		-0.112	0.043		-0.080	0.008	
Feeling about household's income: Living with difficulties	-0.065	-0.416***	**	-0.089	-0.131		-0.087	-0.135		-0.358***	-0.069	**	-0.317**	-0.152	
Unemployment within the last 5 years	-0.160	-0.235**	*	-0.012	-0.310		-0.072	0.044		-0.241*	0.016	*	-0.134	0.061	
Main source of household income: Employed	0	0		0	0		0	0		0	0		0	0	
Main source of household income: Self-employed	0.074	0.147		0.052	-0.219**	*	0.060	-0.170		0.129	-0.283***	***	0.236*	0.019	
Main source of household income: Pension	-0.243*	-0.123		-0.200	0.179*	**	0.049	-0.075		-0.149	-0.048		-0.015	-0.194	
Main source of household income: Unemployed	-0.369	0.023		0.404	-0.149		0.063	-0.243		0.180	0.019		0.758	-0.161	
Main source of household income: Social assistance	3.939	-0.137		3.123	-0.604*		0.626	0.020		0.142	0.077		2.980	0.187	
Main source of household income: Investment or other	4.642	-0.054		3.052	-0.167		-0.039	0.200		-0.554	-0.437		-0.230	-0.841***	
Employment contract duration: Unlimited	0	0		0	0		0	0		0	0		0	0	
Employment contract duration: Temporary	0.100	0.017		-0.098	0.072		-0.016	0.058		0.071	-0.052		-0.206*	0.019	
Employment contract duration: No contract	0.340*	-0.075	**	0.116	0.108		-0.411**	0.334*	***	-0.517***	-0.050	**	-0.570***	-0.332**	
Satisfaction with the state of the economy in the country	0.244***	0.643***	**	0.615***	0.412***		0.477***	0.916***	***	0.474***	0.325**		0.377***	0.053	**
Tolerance: Immigrants make the country a better place to live	0.300***	0.368***		0.312***	0.250***		0.279***	0.226***		0.208**	0.246***		0.218**	0.040	*
Victim of a burglary or an assault in the last 5 years	-0.036	-0.218***	*	-0.059	-0.097		-0.243***	-0.217**		-0.228***	-0.213**		-0.112	-0.241***	
Worked in a civic organisation or an association in last 12 months	0.222**	0.382***		0.112	-0.019		0.108	0.155		-0.039	0.008		-0.048	0.030	
Gender (1=Men, 0=Women)	0.102	-0.018		-0.100	0.132*	**	-0.143*	-0.018		-0.185**	0.088	***	0.063	-0.003	
Age	0.591*	-0.125	**	0.765**	-0.649**	***	0.844***	0.450		0.759**	-0.036	**	0.497	0.800***	
Education level: Without studies	0	0		0	0		0	0		0	0		0	0	
Education level: Primary	0.235*	-0.107	**	0.049	-0.005		0.148	0.080		0.019	-0.361***	**	0.186	-0.097	
Education level: Secondary	0.110	-0.072		-0.079	-0.038		0.047	0.130		-0.018	-0.168**		-0.218	-0.089	
Education level: University	0.487***	-0.085	***	0.016	-0.062		0.107	0.001		0.029	0.052		0.015	0.023	
Religiosity: Not religious	0	0		0	0		0	0		0	0		0	0	
Religiosity: Moderately religious	0.074	0.090		0.222*	0.312***		0.295**	-0.044	**	0.189*	0.202**		0.214*	0.195*	
Religiosity: More religious	0.254**	0.254**		0.468***	0.582***		0.501***	0.164	**	0.308**	0.368***		0.555***	0.383***	
Born in Spain	0.305*	0.108		0.249	-0.249**	**	0.069	-0.023		0.097	-0.203		0.037	0.084	
Political scale self-placement: Centre	0	0		0	0		0	0		0	0		0	0	
Political scale self-placement: Left	0.039	0.215***	*	0.179*	-0.101	**	0.306***	0.122	*	-0.135	-0.208**		-0.182*	-0.180**	
Political scale self-placement: Right	-0.067	0.074		-0.034	0.315***	***	0.217**	0.374***		-0.101	0.095		0.067	0.204**	

Source: European Social Survey (second and fifth waves).

Note: Confidence levels: \*10%, \*\*5% and \*\*\*1%. N = 1155 cases (2004), and N = 1518 cases (2012). The model also includes the categories: Unemployment within the last 5 years: Can't work, and Employment contract duration: Doesn't apply.

<sup>3</sup> To check the robustness of the results, we estimated the same models eliminating some of the explanatory variables (‘Satisfaction with state of economy in country’, ‘Feeling about household’s income’ and ‘Main source of household income’) and checked that the results were robust. The value and the statistical significance of the parameters hardly changed. The results are available from the authors on request.

<sup>4</sup> The matrix of correlations  $\hat{R}$  provides information about the dependency between levels of trust not captured by the explanatory variables. If these correlations were zero, the optimal method would be to use five univariate Probit models. However, the estimated correlations are positive and significantly different from zero.

<sup>5</sup> Some variables are not applicable to all individuals in the sample. In these cases, we have added an additional category ‘Not applicable’. For these categories, we have not included the results of the estimated parameters or the statistical significances in the tables because they cannot be interpreted.

Before the crisis, there were virtually no differences between the categories of the variable ‘main source of household income’. Only pensioners were less trusting of other people and the self-employed showed more trust in the police. During the crisis, trust among the self-employed in the parliament and in the legal system fell. In contrast, trust among pensioners in parliament rose. Furthermore, in this last period, individuals living on social assistance seemed to show less trust in parliament than did the employed and those living on their investments, while the former showed less trust in the police.

The parameters associated with the contract duration variables did not show any statistically significant differences before and during the crisis. However, the population without a contract, compared with those on unlimited contracts, reported less trust in other people and more trust in the political parties. Furthermore, in both periods those without a contract continued to show less trust in the police than was shown by those with contracts. The effect of the variable ‘Satisfaction with state of the country’s economy’ is positive and significant for almost all the dependent variables in both periods, but less so in 2012 for ‘Trust in the police’. Furthermore, the effect of this variable on social trust and trust in the political parties increases significantly during the economic crisis and decreases for trust in the police. Conversely, the effect on institutions such as the parliament and the legal system does not change, while trust levels fall in the case of the police.

In general, economic uncertainty is inversely related to satisfaction with the economy and presents links with the variables ‘Main source of household income’ and ‘Employment contract duration’. Taking into account that economic uncertainty during the economic crisis in Spain had a strong effect on the self-employed, the overall results related to the effect of these variables illustrate how economic uncertainty negatively affects levels of social and institutional trust. The estimated parameters associated with the variable ‘Tolerance: Immigrants make country a better place to live’, which captures the existence of shared social values, are positive and statistically significant. This parameter only changes between 2004 and 2012 when the dependent variable is ‘Trust in the police’. In this specific case, during the crisis, the parameter is not significant. As for social cohesion, captured by the indicator ‘Victim of burglary or assault in the last 5 years’, the signs of the estimated parameters are, as expected, negative. In the case of levels of trust in parliament, the parameters are not significant in either period, that is, before and during the crisis. We observe statistically significant changes between 2004 and 2012 only for levels of trust in other people. Here, distrust is more acute during the economic crisis. Finally, the indicator ‘Worked in civic organisation or association in the last 12 months’ has a positive and significant effect on social trust and does not vary between 2004 and 2012. For the rest of the trust levels, the estimated parameters were not significant.

Finally, in Table 5, we show the joint probability of trusting in the 5 dependent variables (the four institutional trusts and the social trust) in 2004 and 2012 depending on the main source of household income. Furthermore, we include a final column with the variation percentages. To do this comparison, the value of the rest of variables are fixed at their means, and at this point we point out that the mean of a dummy variable can be interpreted as a high (mean near 1) or as a low (mean near 0) probability (or propensity) to take value 1. Notice that with assuming independence between trust variables, all the probabilities decrease considerably. The results in Table 5 show that joint probabilities decrease, and that this decrease is more pronounced for the

‘Investment or other’, ‘Social assistance’, ‘Self employed’ and ‘Unemployed’ (in this order), and match those categories with more unstable situations.

**Table 5**  
Effects of the main source of household income on joint probabilities of trust

Household income sources:	2004	2012	Increase
Employed	0.227906	0.101714	-0.5537
Self-employed	0.260706	0.071118	-0.72721
Pension	0.195063	0.091063	-0.53316
Unemployed	0.224983	0.074075	-0.67075
Social Assistance	0.492661	0.076848	-0.84401
Investment or Other	0.492659	0.076842	-0.84403

Source: European Social Survey 2004 and 2012 waves.

## Discussion

Table 4 demonstrates that increasing *economic* difficulties have had a dual effect. On the one hand, trust in individuals fell among the sectors of society hit hardest by the economic crisis. In contrast, levels of social trust and trust in political parties rose among those who reported being satisfied with the economy. Overall, trust in the political institutions appears to be more strongly linked to a general perception of the economy than it is to an individual’s personal economic situation. Note, however, that only 6% of the total population expressed feeling satisfied with the economic situation in 2012. However, we observe a certain process of polarisation of attitudes towards the institutions among certain economic groups, such as the self-employed and the pensioners.

During the crisis, trust in the political institutions was eroded more than it was in the legal institutions. Trust in parliament fell among the self-employed but increased among pensioners. What these groups have in common is precisely the perception that their situations are directly affected by parliamentary decisions (negatively, in the case of the first group; positively, in that of the second). This reinforces the institutionalist belief that attitudes towards the institutions depend on the extent to which different groups are exposed to and impacted by the decisions the institutions take. It also explains how, with the onset of the economic crisis, trust in the legal system and in the police was eroded significantly among the most economically better off social groups (e.g., landlords, investors) who felt harassed by a system that imposed tighter tax and profit controls. However, the opposite was true in the case of the more disadvantaged sectors of the population. This general idea is further strengthened if we take into consideration the fact that the few people who claimed to be satisfied with the state of the economy also expressed higher levels of trust in the political parties than did the rest of the population. These findings bring to mind the system of political clientelism.

Cultural theories emphasise the long-term importance of attitudes and *social values* in accounting for trust (Uslaner, 2002; Brehm & Rahn, 1997). In line with this claim, in our model, the indicator of tolerance of immigration has a significant effect in explaining almost all types of trust before and during the crisis. At the global level, the total volume of those who stated that ‘Immigration makes a country a better place to live’ hardly changed between 2004 and 2012 and remained at above 40% of the population. A classic indicator of social cohesion is the level of criminal victimisation in a community (Halpern, 2001; Walklate, 1998). The victims of robberies barely changed their attitude towards institutions between 2004 and 2012. However,



victimisation during the crisis did result in a loss of trust in others. With the crisis, factors of civic insecurity and socioeconomic vulnerability interacted as they had never done so before.<sup>6</sup>

In the literature, the existence of a *strong and mobilised civil society* is associated with greater trust (Putnam, 1993; Brehm & Rahn, 1997). In Spain as a whole, the proportion of people collaborating with civic associations increased four percentage points during the crisis, from 18% in 2004 to 22% of the population in 2013. This slight increase went hand-in-hand with a change in the profile of individuals performing such tasks, as well as a change in the problems, originating from the crisis, that they addressed. In our data, civic participation was found to have no significant effect on levels of institutional trust, neither before nor during the crisis. However, participation did have a positive effect on social trust before the crisis, and this effect was strengthened a little as the crisis ran its course. This fact, together with the finding that civic participation increased while trust in institutions fell, could indicate greater self-management on the part of the citizenry. People begin to organise themselves on the margins of those institutions that they perceive as failing to offer solutions to their problems. Given that the victims of the crisis are those with the lowest levels of trust both in other people and in representative institutions, the active incorporation of these groups into the tertiary sector would be desirable, as a means to improve social cohesion.

If we examine the data as a whole, it can be seen that during the crisis in Spain, economic factors gained in relative weight compared to other factors in terms of explaining interpersonal and (to a lesser extent) institutional trust. In 2004, at a time of economic growth, trust in other people depended primarily on individual-level variables, such as age and a high level of education. General satisfaction with the economy, tolerance or participation in civil society were also positive and significant factors, but they presented lower values, while the economic variables appear to have been of little significance. The onset of the crisis, however, completely inverted this relationship. In 2012, sociodemographic factors lost part of their significance and the economic indicators gained in relevance. At that date, the strongest factor accounting for social trust was satisfaction with the way the economy worked. In contrast, having to face economic difficulties and being unemployed led to an erosion of trust in others. The deterioration in social cohesion (measured by crime victimisation) also increased levels of distrust. Thus, economic wellbeing and economic malaise become more decisive factors in accounting for varying levels of interpersonal trust.

Before the crisis, trust in the parliament, the representative institution *par excellence*, was relatively independent of the citizens' socio-demographical status (except for age and religiosity) and of an individual's economic situation. Only the perception of the economy had a certain role to play. This suggests that political trust depends mostly on institutional performance (Torcal, 2014; Armingcon & Ceka, 2014). After 2012, the economic disadvantages faced by many citizens did not lead to significant changes. Distrust in parliament only increased among the self-employed, whereas trust grew among pensioners. The perception of the state of the economy continues to be important. Holding a conservative political ideology and, to some extent, religiosity are the only socio-demographic variables that gained in relevance. In

---

<sup>6</sup> The same effects are also generated in a context in which victimisation rates are slightly lower during the crisis (Torrente, 2015).

sum, satisfaction with the economy and ideological factors account for the changes in parliamentary trust. Moreover, during the crisis, the population's confidence in the political parties became increasingly conditional on their perception of the state of the economy.

In the case of the normative institutions, the pattern is reversed. Before the recession, the legal system was called into question by the young and those living with financial difficulties, working without a contract, or dissatisfied with the general economic situation. In short, economic marginalisation led to feelings of distrust in the legal order. During the crisis, distrust among the young and the most disadvantaged social groups waned, but it rose among the more advantaged (i.e. those living on investments and small autonomous entrepreneurs). Thus, the law was increasingly seen as an element of protection among the former, and as an element of risk among the latter. The case of the police is similar: before the economic crisis, those who were most distrustful of the police were groups in economically and contractually marginal situations. However, during the crisis, the main detractors of the police became the privileged few living off their rents. Satisfaction with the economy no longer seemed to be a guarantee of trust in the police.

In conclusion, the economic crisis appears to have shifted some of the foundations of social and institutional trust. The bases of interpersonal trust have clearly moved from sociodemographic to economic questions, as most of the disadvantaged have seen their trust in others eroded. At the same time, the individual's personal economic situation does not fully account for the loss of institutional trust. But, among certain social groups, especially the self-employed, feelings of distrust in parliament and the legal system have grown.

## **Conclusion**

The aim of this study was to examine the joint effect of economic inequalities on levels of social and institutional trust in the context of a severe economic recession. We wanted to re-examine economic and institutional performance theories in that context. To do so, the case of Spain in the 2008 crisis was selected for analysis. Our first hypothesis was that an increase in socioeconomic inequalities leads to an increased polarisation in social and institutional trust between different social groups. Our second hypothesis was that economic factors become more significant than perceived institutional performance and other factors in explaining levels of trust, because of rising economic inequality and the accompanying polarisation of attitudes. To test these hypotheses, we devised a multivariate Probit model of five equations, which we replicated both before and during the crisis. Our data were drawn from the European Social Survey.

In relation to the first hypothesis, our results show that the consequences of the economic crisis modified the factors that define trust in Spain, and that socioeconomic polarisation played an important role in some of the changes seen. In the case of interpersonal trust – which increased slightly across the whole population when measured at a global level, the analysis shows that the most disadvantaged and least disadvantaged by the crisis presented diametrically opposed behaviours. Thus, those who were hit hardest by its consequences (e.g., through low incomes and unemployment) saw their trust in each other eroded. Indeed, their reported satisfaction

with the state of the economy became the variable that best explained their levels of social trust. Economic inequality resulted in a polarisation of attitudes towards other people, undermining the foundations of social cohesion. This phenomenon affected especially the most vulnerable groups and weakened their interpersonal trust further. However, participation in civil society was found to play a certain corrective role.

Trust in institutions (particularly, the country's representative institutions) declined dramatically in the course of the crisis. However, the factors that account for the citizens' trust in political and legal institutions behave differently. Trust in institutions varies among different social groups during the crisis. It seems increasingly that it came to depend on the perception that distinct social groups (most notably, pensioners, workers without contract and the self-employed) had of whether these institutions' actions were favourable, or not, to their interests. Although this fact is consistent with the institutional performance thesis, it is also true that economic variations at the personal level appear to underlie some of the attitudinal changes observed. For example, the self-employed became more critical of the parliament, while those that live off their rents and investments expressed significantly less trust in the legal system and in the police. In contrast, some of the less advantaged groups (the unemployed and those living with economic difficulties) expressed greater trust in the legal institutions as they felt they afforded them greater protection against the effects of the crisis. In short, we find increasingly differentiated levels of institutional trust between groups that have been affected by the crisis in quite distinct ways. In this respect, their perception of the performance of institutions, which is the main underlying explanatory variable, is conditioned by this fact.

All in all, the data analysed here allow us to confirm, in part, our second hypothesis. Against the backdrop of the far-reaching economic crisis, the power of economic factors to account for social trust rises, primarily owing to the deterioration in the individuals' personal economy. Indeed, a person's current economic situation seems to have a stronger impact than any future uncertainty. The outcome is a process marked by the general polarisation of attitudes in which an individual's economic situation plays a key role. Yet, our findings suggest that the deterioration of an individual's personal economy plays a less important role in the erosion of institutional trust and the polarisation of attitudes towards these institutions. This said, however, the general perception of the functioning of the economy maintains an important role. Indeed, the fall in levels of institutional trust recorded in Spain has been notoriously dramatic. Without calling into question the importance of institutional performance in explaining levels of institutional trust, our research contributes with new perspectives to the existing literature. First, the marked deterioration in the domestic economies of certain disadvantaged groups has had major consequences in terms of their levels of social trust. Second, this deterioration has resulted in different impacts on institutional trust. Overall, the relationship between personal economic difficulties and trust in political institutions is not a determining factor as a whole; yet, it is a factor that clearly affects the attitudes of particular groups. However, legal institutions are perceived as a protective factor by the more disadvantaged against the worst effects of the crisis, but as something of a threat by the more privileged. Yet, the perception of the overall state of the economy is important for all types of institutional trust, indicating that, in short, the economy matters for trust. Put in other way: in severe recession contexts, political performance still matters for trust, but matter differently among different social groups. This discovery could explain why institutional and social trust do not support each other in Spain (or Greece) as much as theories of institutional performance expect. It also

claims for more research on the social destructuring effects of severe economic downfalls.

## Funding

This work was supported by the Fundaci3n la Caixa's Recercaixa 2013 Program.

## References

- Armingeon K, Ceka B (2014) The loss of trust in the European Union during the great recession since 2007: The role of heuristics from the national political system. *European Union Politics* 15(1) : 82–107.
- Armingeon K, Guthmann K (2014) Democracy in crisis? The declining support for national democracy in European countries, 2007–2011. *European Journal of Political Research* 53 (3): 423–442.
- Armingeon K, Guthmann K, Weisstanner D (2016). How the Euro divides the union: The effect of economic adjustment on support for democracy in Europe. *Socioeconomic Review* 14 (1): 1–26.
- Banco de Espa1a (2013) Bolet3n econ3mico. Madrid: Banco de Espa1a.
- Berggren N, Jordahl H (2006) Free to trust: Economic Freedom and Social Capital. *Kyklos* 59(2): 141–169.
- Bergh A, Bj3rnskov C (2014) Trust, welfare states and income equality: Sorting out the causality. *European Journal of Political Economy* 35: 183–199.
- Bonasia M, Canale RR, Liotti G et al. (2016) Trust in institutions and economic indicators in the Eurozone: The role of the crisis. *Engineering Economics* 27 (1): 4–12.
- Brehm J, Rahn W (1997) Individual level evidence for the causes and consequences of social capital. *American Journal of Political Science* 41(3): 999–1023.
- Brooks C, Manza J (2007) *Why Welfare States Persist: The Importance of Public Opinion in Democracies*. Chicago: Chicago University Press.
- Buskens V (1998) The social structure of trust. *Social Networks* 20(3): 265–289.
- Ca3s J, Folguera L, Formoso C (2014) *Investigaci3n Cualitativa Longitudinal*. Madrid: Centro de Investigaciones Sociol3gicas.
- Catterberg G, Moreno A (2006) The individual bases of political trust: Trends in new and established democracies. *International Journal of Public Opinion Research* 18(1): 31–48.
- Chanley VA, Rudolph T, Rahn WM (2001) Public trust in government in the Reagan years and beyond. In: Hibbing JR, Theiss-Morse E (eds) *What Is It about Government that Americans Dislike?* Cambridge: Cambridge University Press, 59–82.
- Chi E, Kwon HY (2016) The trust-eroding effect of perceived inequality: Evidence from East Asian new democracies. *The Social Science Journal* 53(3): 318–328.
- Citrin J, McClosky H, Merrill Shanks J, Sniderman PM (1975) Personal and political sources of political alienation. *British Journal of Political Science* 5(1): 1–31.
- Delhey J, Newton K (2003) Who trusts? The origins of social trust in seven societies. *European Societies* 5(2): 93–137.

- Delhey J, Newton K (2005) Predicting cross-national levels of social trust: Global pattern or Nordic exceptionalism? *European Sociological Review* 21(4): 311–327.
- Dotti Sani GM, Magistro B (2016) Increasingly unequal? The economic crisis, social inequalities and trust in the European Parliament in 20 European countries. *European Journal of Political Research* 55(2): 246–264.
- Ervasti H, Kouvo A, Venetoklis T (2019) Social and institutional trust in times of crisis: Greece, 2002–2011. *Social Indicators Research* 141(3): 1207–1231.
- Eurostat (2015) GDP per capita in PPS. Brussels: European Commission.
- Fairbrother M, Martin IW (2013) Does inequality erode social trust? Results from multilevel models of US states and countries. *Social Science Research* 42(2): 347–360.
- Fernández de Guevara J, Pérez F, Serrano L (2015) *Crisis económica, confianza y capital social*. Madrid: Fundación BBVA.
- Frewer L (1999) Risk perception, social trust, and public participation in strategic decision making: Implications for emerging technologies. *Ambio* 28(6): 569–574.
- Fukuyama F (1995) *The Social Virtues and the Creation of Prosperity*. New York: Free Press.
- Fundación Foessa (2014) VII Informe sobre exclusión y desarrollo social en España. Madrid: Cáritas Española.
- Gallego A (2016) Inequality and the erosion of trust among the poor: Experimental evidence. *Socio-Economic Review* 14(3): 443–460.
- Greene WH (1999) *Análisis Econométrico*. Madrid: Prentice Hall Iberia.
- Habibov N (2015) Pre- and post-crisis life-satisfaction and social trust in transitional countries: An initial assessment. *Social Indicators Research* 121(2): 503–524.
- Halpern D (2001) Moral values, social trust and inequality. Can values explain crime? *The British Journal of Criminology* 41(2): 236–251.
- Hastings OP (2018) Less equal, less trusting? Longitudinal and cross-sectional effects of income inequality on trust in U.S. States, 1973–2012. *Social Science Research* 74: 77–95.
- Instituto Nacional de Estadística (INE) (2013) Encuesta de la población active (EPA). Madrid: INE.
- Instituto Nacional de Estadística (INE) (2015) Encuesta de condiciones de vida (ECV). Madrid: INE.
- Iravani MR, Dindar E (2011) The survey of factors affecting social trust among students: A case study of Jahrom universities' students. *African Journal of Business Management* 5(3): 1051–1059.
- Kramer GH (1983) The ecological fallacy revisited: Aggregate- versus individual-level findings on economics and elections, and sociotropic voting. *American Political Science Review* 77(1): 92–111.
- Laparra M, Pérez B (eds) (2012) *Crisis y fractura social en Europa. Causas y efectos en España*. Barcelona: Obra social La Caixa.
- Levi M, Stoker L (2000) Political trust and trustworthiness. *Annual Review of Political Science* 3: 475–507.
- Li Y, Savage M, Warde A (2008) Social mobility and social capital in contemporary Britain. *The British Journal of Sociology* 59 (3): 391–411.
- Lipset SM, Schneider WG (1987) *The Confidence Gap*. Baltimore: Johns Hopkins University Press.
- Misztal BA (1996) *Trust in Modern Societies*. Cambridge: Polity.

- Mitar M, Kurdija S, Azman B (2013) Income inequality, wealth and trust in the police. Slovenia vs. Europe. In: Meško G, Sotlar A, Greene JR (eds) *Criminal Justice and Security: Contemporary Criminal Justice Practise and Research. Conference Proceedings*. Ljubljana, Slovenia: University of Maribor.
- Molm LD, Takahashi N, Peterson G (2000) Risk and trust in social exchange: An experimental test of a classical proposition. *American Journal of Sociology* 105(5): 1396–1427.
- Nannestad P (2008) What have we learned about generalized trust, if anything? *Annual Review of Political Science* 11: 413–436.
- Newton K (2001) Trust, social capital, civil society, and democracy. *International Political Science Review* 22(2): 201–214.
- Newton K, Norris P (2000) Confidence in public institutions: Faith, culture or performance? In: Pharr S, Putnam R (eds) *Disaffected Democracies: What's Troubling the Trilateral Countries?* Princeton, NJ: Princeton University Press, 52–74.
- Newton K, Stolle D, Zmerli S (2018) Social and political trust. In: Uslander EM (ed.) *The Oxford Handbook of Social and Political Trust*. Oxford: Oxford University Press.
- OECD (2014) *Income Inequality and Poverty*. Paris: OECD.
- Oishi S, Kesebir S, Diener E (2011) Income inequality and happiness. *Psychological Science* 22(9): 1095–1100.
- Olivera J (2015) Changes in inequality and generalized trust in Europe. *Social Indicators Research* 124(1): 21–41.
- Polavieja J (2013) Economic crisis, political legitimacy, and social cohesion. In: Gallie D (ed.) *Economic Crisis, Quality of Work and Social Integration: The European Experience*. Oxford: Oxford University Press, 256–278.
- Putnam RD (1993) *Making Democracy Work: Civil Traditions in Modern Italy*. Princeton: Princeton University Press.
- Putnam RD (2000) *Bowling Alone. The Collapse and Revival of American Community*. New York: Simon & Schuster.
- Rahn WM, Transue JE (1998) Social trust and value change: The decline of social capital in American youth, 1976-1995. *Political Psychology* 19(3): 545–565.
- Richey S (2010) The impact of corruption on social trust. *American Politics Research* 38(4): 676–690.
- Robbins BG (2011) Neither government nor community alone: A test of state-centered models of generalized trust. *Rationality and Society* 23(3): 304–346.
- Roth F (2009) The effects of financial crisis on systemic trust. *Intereconomics* 44(4): 203–208.
- Roth F, Nowak-Lehmann FD, Otter T (2013) Crisis and trust in national and European Union institutions. Panel Evidence for the EU, 1999 to 2012. Working Paper, EUI RSCAS, 2013/31, EUDO – European Union Democracy Observatory.
- Rothstein B (2011) *The Quality of Government: Corruption, Social Trust, and Inequality in International Perspective*. Chicago: University of Chicago Press.
- Rothstein B, Uslander EM (2005) All for all: Equality, corruption, and social trust. *World Politics* 58(1): 41–72.
- Sampson RJ, Raudenbush SW (1999) Systematic social observation of public spaces: A look at disorder in urban neighborhoods. *American Journal of Sociology* 105(3): 603–651.
- Searing EAM (2013) Love thy neighbor? Recessions and interpersonal trust in Latin America. *Journal of Economic Behavior & Organization* 94: 68–79.

- Siegrist M, Cvetkovich G, Roth C (2000) Salient value similarity, social trust, and risk/benefit perception. *Risk Analysis* 20(3): 353–362.
- Siegrist M, Gutscher H, Earle TC (2005) Perception of risk: The influence of general trust, and general confidence. *Journal of Risk Research* 8(2): 145–156.
- Sønderskov KM, Dinesen PT (2016) Trusting the State, trusting each other? The effect of institutional trust on social trust. *Political Behavior* 38(1): 179–202.
- Sullivan GM, Artino AR Jr (2013) Analyzing and interpreting data from likert-type scales. *Journal of Graduate Medical Education* 5(4): 541–542.
- Thomé HI, Torrente D (2003) *Cultura de la seguridad ciudadana en España*. Madrid: Centro de Investigaciones Sociológicas.
- Torcal M (2014) The decline of political trust in Spain and Portugal: Economic performance or political responsiveness. *American Behavioral Scientist* 58(12): 1542–1567.
- Torcal M (2017) Political trust in Western and Southern Europe. In: Zmerli S, Van der Meer TWG. *Handbook on Political Trust*. Cheltenham Glos: Edward Elgar.
- Torrente D (2001) *Desviación y delito*. Madrid: Alianza Universidad.
- Torrente D (2015) Seguridad pública comparativa. In: Torres C (ed.) *España 2015: Situación social*. Madrid: Centro de Investigaciones Sociológicas, 1316–1327.
- Uslaner EM (2002) *The Moral Foundations of Trust*. Cambridge, UK: Cambridge University Press.
- Uslaner EM (2018) The study of trust. In: Uslaner EM (ed.) *The Oxford Handbook of Social and Political Trust*. Oxford: Oxford University Press.
- Walklate S (1998) Crime and community: Fear or trust? *The British Journal of Sociology* 49(4): 550–569.
- Zizumbo-Colunga D, Zechmeister E, Seligson M (2010) Social capital and economic crisis in the United States. *Americas Barometer Insights* 43: 1–9.
- Zmerli S, Castillo JC (2015) Income inequality, distributive fairness and political trust in Latin America. *Social Science Research* 52: 179–192.
- Zmerli S, Newton K (2008) Social trust and attitudes toward democracy. *Public Opinion Quarterly* 72(4): 706–724.
- Zmerli S, Newton K (2017) Objects of political and social trust: Scales and hierarchies. In: Zmerli S, Van der Meer TWG. *Handbook on Political Trust*. Cheltenham Glos: Edward Elgar.

# Appendix

**Table A1**  
**Parameter estimation of the 2004 and 2012 models, including ‘Satisfaction with democracy’**  
**(Seemingly Unrelated Regression Coefficients)**

	Trust in other people		Trust in Parliament		Trust in Political parties		Trust in the Legal system		Trust in the Police	
	2004	2012	2004	2012	2004	2012	2004	2012	2004	2012
Intercept	-	0.454*	-	-0.335	-	-	-0.407	-0.322	0.073	0.141
Feeling about household’s income:	0	0	0	0	0	0	0	0	0	0
Feeling about household’s income:	0.075	-0.101	-0.049	0.023	0.09	-	-0.109	0.049	-0.078	0.003
Feeling about household’s income:	-0.041	-	-0.020	-0.112	-	-	-	-0.043	-	-0.143
Unemployment within the last 5	-0.162	-0.227*	-0.020	-	-	0.07	-0.264*	0.039	-0.150	0.065
Main source of household income:	0	0	0	0	0	0	0	0	0	0
Main source of household income:	0.074	0.157	0.049	-	0.04	-	0.125	-	0.234	0.038
Main source of household income:	-0.236*	-0.120	-0.185	0.199*	0.07	-	-0.128	-0.048	0.013	-0.185
Main source of household income:	-0.358	0.052	0.431	-0.112	0.12	-	0.213	0.060	0.833	-0.111
Main source of household income:	3.822	-0.128	3.552	-0.638*	0.80	0.05	0.293	0.097	3.235	0.190
Main source of household income:	4.261	-0.108	2.663	-0.295	-	0.09	-0.696	-0.550*	-0.385	-
Employment contract duration:	0	0	0	0	0	0	0	0	0	0
Employment contract duration:	0.115	0.004	-0.059	0.044	0.02	0.03	0.104	-0.079	-0.184	0.004
Employment contract duration:	0.350*	-0.083	0.176	0.107	-	0.33	-	-0.059	-	-
Satisfaction with the state of the	0.193*	0.536*	0.489*	0.172	0.32	0.73	0.351*	0.125	0.256*	-0.157
Satisfaction with the way	0.222*	0.385*	0.646*	0.837**	0.65	0.62	0.517*	0.666*	0.554*	0.695*
Tolerance: Immigrants make the	0.270*	0.349*	0.239*	0.211**	0.21	0.18	0.146*	0.206*	0.155*	0.010
Victim of a burglary or an assault in	-0.024	-	-0.029	-0.085	-	-	-	-	-0.077	-0.232
Worked in a civic organisation or	0.215*	0.377*	0.101	-0.026	0.08	0.14	-0.060	0.001	-0.070	0.025
Gender	0.104	-0.031	-0.099	0.099	-	-	-	0.06	0.079	-0.012
Age	0.568*	-0.165	0.675*	-	0.75	0.43	0.684*	-0.106	0.415	0.738*
Education level: Without studies	0	0	0	0	0	0	0	0	0	0
Education level: Primary	0.216	-0.108	0.000	-0.004	0.09	0.08	-0.023	-	0.147	-0.107
Education level: Secondary	0.097	-0.072	-0.120	-0.037	0.01	0.13	-0.043	-	-0.044	-0.096
Education level: University	0.477*	-0.092	-0.008	-0.075	0.07	-	0.0078	0.042	-0.003	0.002
Religiosity: Not religious	0	0	0	0	0	0	0	0	0	0
Religiosity: Moderately religious	0.057	0.081	0.184	0.312**	0.25	-	0.151	0.189*	0.179	0.181*
Religiosity: More religious	0.224*	0.228*	0.397*	0.547**	0.41	0.11	0.240*	0.310*	0.511*	0.349*
Born in Spain	0.331*	0.132	0.348*	-0.217*	0.14	0.00	0.167	-0.161	0.118	0.134
Political scale self-placement:	0	0	0	0	0	0	0	0	0	0
Political scale self-placement: Left	0.017	0.241	0.115	-0.050	0.24	0.17	-	-	-	-0.151*
Political scale self-placement: Right	-0.054	0.035	-0.002	0.246**	0.25	0.30	-0.078	0.026	0.118	0.143

Source: European Social Survey (second and fifth waves).

Note: Confidence levels: \*10%, \*\*5% and \*\*\*1%. N =1155 cases (2004), and N =1518 cases (2012). The model also includes the categories: Unemployment within last 5 years: Can’t work, and Employment contract duration: Doesn’t apply.