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Economic crisis and social capital in European societies: the role of politics in understanding short-term changes in social capital

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ABSTRACT

How did the economic crisis impact social capital in European societies? The empirical studies conducted so far provide contradictory conclusions about the strength and direction of its influence. We argue that to better understand the effects of the economic crisis on social capital (social trust, formal and informal networks) it is crucial to examine both its impact on people's economic situation and the way it reshaped the relationship between individuals and political institutions and altered key political factors (political trust, the welfare state, political activism). Our analysis of European Social Survey data between 2006 and 2012 shows that changes in social trust were smaller than in formal and informal social networks. It also confirms that political factors played an important mediating role in producing these changes: changes in social trust and formal networks can especially be explained by the impact of the political factors, while variations in informal networks are mainly due to the changing economy. Moreover, the analyses show that while the economic crisis generally lowered social capital, some mechanisms such as a sense of togetherness and left-wing political activism, enhanced social capital.

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KEYWORDS Economic crisis; social capital; social networks; social trust; political trust; political activism

1. Introduction

This paper adds to the debate on the relationship between economic, political and social conditions in societies undergoing serious economic difficulties, such as the economic crisis that started in 2007. Many studies show the Great Recession's impact extended far beyond the economic system. For

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example, the economic crisis is shown to have detrimentally affected individuals' health (Stuckler et al. 2009; Karanikolos et al. 2013), weakened social cohesion (Andrews et al. 2014; Armingeon and Guthmann 2014; Foster and Frieden 2017), increased societal pessimism (Steenvoorden and van der Meer 2017) and contributed to the growing protest action and political populism (Bermeo and Bartels 2014; Grasso and Giugni 2016). In this article, we explore another potentially negative consequence of the economic crisis for the social fabric, namely its impact on social capital.

In the seminal discussion on the forms of capital, Bourdieu (1986) defined social capital in terms of social connections and subjectively felt obligations that help mobilise social resources in order to gain recognition and secure material or symbolic benefits. A broad range of benefits of social capital has been identified for individuals, including a greater chance of finding a job and being 'successful in life' (e.g. Granovetter 1974; de Graaf and Flap 1988; Rözer and Brashears 2018), and coping with stress and feeling healthier and better (Brehm and Rahm 1997; Kawachi et al. 1999; Hoogerbrugge and Burger 2018). At the collective level, countries and neighbourhoods with higher stocks of social capital have more participatory politics (Inglehart 1995; Newton 2001; Paxton 2002) and perform better in economic terms (Woolcock 1998; Berggren and Jordhal 2006; Hanka and Engbers 2017).

Economic factors have long been also recognised as antecedents of the level of social capital in a society. Studies show that long-term trends in the changes in social capital in contemporary societies are best explained in terms of post-industrial social structure and, in particular, a worsening of the economic situation of individuals and households due to squeezed incomes and rising inequality (Paxton 1999; Costa and Kahn 2003; Uslaner 2002; Patulny 2005; Clark 2015). Economic factors stand out among the many sources of cross-national differences in social capital (Brehm and Rahn 1997; Delhey and Newton 2003; Bjørnskov and Svendsen 2007; Norris and Davis 2007; Steijn and Lancee 2011; Ferragina 2013). In Europe, levels of social capital decrease as we move from the north-west to the south-east, following macroeconomic indicators such as GDP (van Oorschot et al. 2006; Pichler and Wallace 2007; Ferragina 2013).¹

The Great Recession provides a new impetus to reflect on the effect of economic conditions on social capital. During the recession, growth rates dropped, unemployment rose, and average income decreased (IMF 2009).

¹The exception from this general trend represent frequent informal contacts with friends and family members in the southern European countries (Pichler and Wallace 2007).

The financial crisis also increased income inequality, in particular market inequality due to the higher levels of unemployment. While in the EU 15 countries the changes in disposable income inequality were limited due to tax-benefit system (Raitano 2016), they were much more significant in Southern and Eastern European countries, especially after 2010 (Inchauste and Karver n.d.). In these countries, the deterioration of the individual's living standard and the rise of income inequality were exacerbated by the austerity measures imposed upon them by international actors such as the IMF and the European Union and implemented by national governments (Clark 2016).

Empirical studies offer no consistent answer to the question of the recent economic crisis' effects on social capital: some show it has negatively influenced social trust (Zizumbo-Colunga et al. 2010; Igljč 2014; van der Crujisen *et al.* 2016; Lindstron and Giordano 2016), others do not perceive any major change in trust levels (Uslaner 2014; Ervasti et al. 2019), while still others show a rise in social trust (Growiec et al. 2012; Anderson 2015; Habibov and Afandi 2015). Thus far, the interpretations of these opposing results have typically used *ad hoc* explanations and lacked any systematic examination of the underlying mechanisms. Moreover, the studies have concentrated mostly on the impact of economic crisis on changes in social trust, one of the aspects of social capital, whereas we still know very little about what happened with social networks.

The paper makes three contributions to the existing literature. First, it offers a comprehensive overview of the changes in social capital in a large number of countries shortly before, during and after the economic crisis, by simultaneously examining both aspects of social capital: trust and social networks. It turns out that the economic crisis indeed held different consequences for different aspects of social capital. Second, it shows that while the effects of economic crisis worked largely in the direction of lower social capital, there were some crisis-inherent mechanisms that led to higher social capital. As a result, the economic crisis' impact on social capital was not as detrimental as expected. Third, it demonstrates that in order to understand how social capital developed during the crisis in different countries, one should look at the combined impact of economic and political factors. The theoretical interpretation of their effects is made by relying on two arguments which we refer to as the 'resources and opportunities' argument and the 'political society' argument respectively. The analytical model conceives economic factors as having a direct impact on social capital, as well as an indirect one that runs through political factors. This means that the economic factors are assumed to change

the relationship between individuals and political institutions which, in turn, affects social capital.

Our analysis focuses on the crisis' short-term impact between 2006 and 2012 in 25 European countries. We complement repeated individual cross-sectional data with national-level data to simultaneously look at the within-country effects of economic and political factors on social capital. As we use repeated cross-sectional data, and have no true panel data, the results must be interpreted as average (i.e. aggregate) changes over time across the set of countries.

2. Consequences of the economic crisis for social capital

We conceive social capital from Bourdieu's (1986) sociological perspective which defines it in terms of social phenomena (i.e. social connections and subjectively felt obligations) whose interrelations with economic and political realms have yet to be theorised and tested in empirical analysis.² As shown in Figure 1, we conceptualise social connections in terms of informal networks (frequency of socialising with kin, friends and colleagues) and formal networks (membership in civic associations such as clubs and voluntary organisations), a frequent distinction in the literature on this issue (Scheepers *et al.* 2002; Iglíč and Font 2007; Gelissen *et al.* 2012).³ In both cases, the focus is on the extensiveness of social networks.⁴ With respect

²Although the measures of political trust, political engagement, and political participation are often included among the indicators of social capital, we maintain a distinction between the social and political realms in order to better understand social dynamics in the economic crisis. Political variables are treated as explanatory variables rather than dimensions of social capital. In this way we also respond to criticism which claims that the prevalent use of the concept of social capital aims at depoliticizing the processes of the creation and maintenance of social bonds and solidarity in the society and masks the incompatibility of the policy aim to bolster social capital with the neoliberal political agenda (Fine 1999; Navarro 2002; Smith and Kulynych 2002; Ferragina and Arrigoni 2016). Our analysis in particular seeks to identify political and economic factors responsible for the deterioration of social capital in crisis, including increasing income inequality and dissolution of the welfare state.

³We depart from the practice of conceiving social capital as a unitary concept (Scheepers *et al.* 2002; van Oorschot *et al.* 2006; Ferragino 2017; Obert *et al.* 2019), and instead work with separate measures of social capital assuming they have different external validity, which is why their relationship with the explanatory variables could be concealed if replaced by a single construct.

⁴Reeskens and van Oorschot (2014) define the extensiveness and intensiveness of social networks as follows: the former expresses how well connected individuals are, and the latter the extent to which networks embed social resources. We conceive both measures - frequency of informal contacts and membership in formal associations - as indicators of network extensiveness although there is an obvious difference between them. Membership in an association does not give us the information about how often one participates or how much time one spends working for the association. These two measures can sometimes give contradictory results, for example, it has been shown that occupational groups like managers are members of a larger number of organisations, but spend less time participating (Fisher *et al.* 2004). Membership is also not necessarily related to larger networks (Letki and Mierina 2014). One should be careful thus when presenting the results based on membership information.

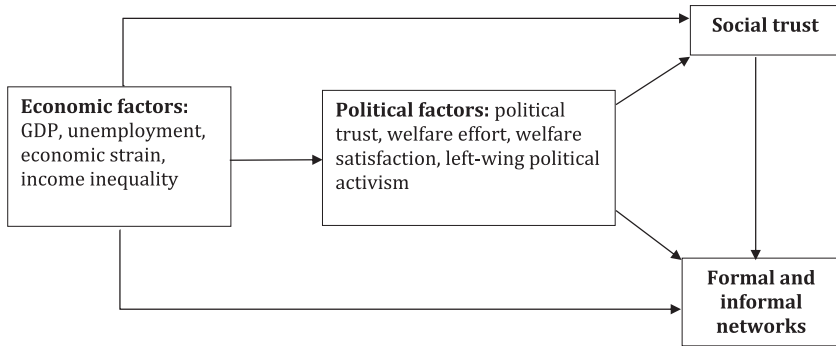


Figure 1. Combined effects of economic and political factors on social capital.

to the subjectively perceived obligations, we dwell on the notion of social trust as an important attitudinal condition for the establishment of social ties and generation of social resources. In theory, a difference is made between generalised and particularised trust on the basis of criteria ‘in whom we trust’ (Uslaner 1999; Stolle 2002; Delhey and Newton 2005). Given that we only have a measure of generalised trust which indicates how much one trusts people in general, we focus on this aspect.

Previous research questioned whether the economic crisis is related to the decline of social capital in general, or only to a particular type of social capital. It is argued that during the economic crisis a lack of resources might have prevented the development and maintenance of bridging social capital, while the increased need for personal support in the cases of emergency enhanced bonding social capital (Hlebec et al. 2010; Iglič 2014). Originally, bonding social capital includes social networks that include people who are similar to each other with respect to various social dimensions (social class, education, race, etc.), and bridging social capital connections between dissimilar people that hold the capacity to cross-cut social cleavages (Putnam 2000). Related theoretical dichotomies include closed versus open and exclusive versus inclusive networks (Cook 2005; Svendsen and Svendsen 2016). Regardless of the terminology, there is agreement that these types of networks perform very different functions for individuals and communities: dense networks with close and homogeneous social ties are often considered more likely to offer support when needed and asked for and provide a feeling of embeddedness, while sparse networks with weak and heterogeneous social ties can bridge the gap vis-à-vis other groups and information (Granovetter 1973). Since we are limited with respect to the measurement instruments,

we can only offer indirect conclusions about the changing character of social capital during the crisis; we will interpret a decline in generalised trust and formal networks as a sign of less bridging social capital, assuming they connect people with diverse others (Putnam 2000; Rothstein and Stolle 2003). Informal networks are less diverse than formal ones (Feld 1981) and they stand closer to the individual, which is why they are assumed to represent people's bonding social capital. Thus, by focusing on formal and informal social networks and generalised social trust we include three key and frequently studied aspects of social capital (e.g. Flap and Volker 2013), and can examine whether the economic crisis decreased social capital generally or instead altered its character.

Figure 1 presents our analytical model containing the economic and political factors responsible for changes in social capital. We argue that social trust and social networks were directly affected by the economic downturn, as first observed by a decline in GDP, and later by rising unemployment and income inequality, and households' increasing financial difficulties.⁵ But the economic crisis also held the potential to transform citizens' political attitudes and behaviour, depending on how much responsibility for the economic situation was assigned to politicians, and how well those politicians managed the impacts of the crisis. This represents the indirect effect of economic crisis on social capital that runs through several political factors.

Typically, it is argued that four sets of political institutions impact social capital: law enforcement institutions, state regulatory institutions, welfare state institutions, and power-sharing institutions (Robbins 2012). Only the last two – the welfare and power-sharing institutions – are considered in our study because they were the most seriously challenged by the economic crisis. We operationalise them in terms of the welfare effort (social expenditures), welfare satisfaction (citizens' assessment of the work of the welfare systems) and political trust (trust in representative institutions).⁶ These factors have previously emerged as important

⁵We use the term 'economic crisis' when referring to economic changes generally that occur at the country and individual level. The notion of 'economic downturn' is used for falling GDP (country level) and 'individuals' declining economic conditions' for changes in unemployment and economic strain (individual level).

⁶In a study on the welfare state and social capital, Ferragina (2017) distinguishes welfare size (social spending) and welfare generosity (decommodification) and argues they capture different things; welfare generosity refers to the actual functioning of the welfare state, and welfare size to the amount spent on specific policies and programmes (see also van Oorschot and Arts 2005). Decommodification is assumed to foster pro-social attitudes much more than social expenditures, and thus have a stronger relationship with social trust. We take a slightly different approach and include in the model the objective and subjective measures of the welfare state: welfare effort and welfare satisfaction. We suppose

institutional predictors of social trust in cross-national studies (Brehm and Rahn 1997; Rothstein and Stolle 2001; Delhey and Newton 2003; van Oorschot et al. 2006; Bjørnskov and Svendsen 2007; Norris and Davis 2007; Ferragina 2017). Finally, we include political activism among the mediating political variables. A relationship is established in the literature between social trust and transformative political movements of the 1970s (Uslaner 2002), and it has been argued that large-scale political mobilisation is a significant collective experience capable of changing social trust.

In the following sections, we discuss theoretical arguments and present hypotheses concerning the effects of economic crisis on changes in social trust and social networks, respectively.

2.1. *The economic crisis and social trust*

When discussing the impact of the economic crisis on social trust we stem from Coleman's (1990) model in which people invest trust in others on the basis of, first, a consideration of potential *losses and gains* made in light of the resources they control and, second, an assessment of the *trustworthiness* of others. The economic crisis reduced salaries and wages and brought about higher unemployment levels, thereby altering individuals' resources and their perceptions of the losses and gains. We refer to this as the 'resources and opportunities' argument. On the other hand, the economic crisis changed how the trustworthiness of others was assessed by transforming political society, namely individuals' political behaviour and attitudes regarding institutions and society in general. We denote this as the 'political society' argument.

2.1.1. *'Resources and opportunities' argument*

Aggregate-level empirical analyses show that national wealth is an important predictor of social trust (Ross et al. 2001; Alesina and Ferrara 2002; van Oorschot and Arts 2005) in the sense that the richer the country, the higher the social trust. This impact on social capital is known as the 'wealth effect' (Alesina and Ferrara 2002; Delhey and Newton 2005). Key to understanding this relationship is that trust is a 'luxury' that those with fewer resources cannot afford (Knack and Keefer 1997; Zak and Knack 2001; Beugelsdijk et al. 2004; Steijn and Lancee 2011). When during an economic crisis the risk of financial hardship increases,

that when people are satisfied with the work of the welfare system they conclude from this that high levels of solidarity and cohesion characterise the society in which they live.

individuals will become risk-averse because any additional loss of resources might hold serious consequences for the welfare of their families. This results in the following hypothesis: *individuals' declining economic conditions during the economic crisis – i.e. increasing risk of individuals becoming unemployed and facing economic hardship – reduced social trust. (H1)*

However, European countries are comprehensive welfare states in which people's economic situation does not depend solely on market forces. During the crisis, people were offered protection by income-replacement schemes to ameliorate the economic consequences of the economic downturn. But, large differences were seen in this respect across Europe. While some countries saw an increase, others experienced a sharp decline. A decline was characteristic particularly for Southern and Eastern European countries that introduced harsh austerity measures as part of the second wave of 'crisis management' (Hemerijck and Vandembroucke 2012). For example, real public social spending in Greece was down by 14 percent (OECD 2012), although more people relied on it. The insufficient or even declining welfare effort most strongly affected individuals with modest means, placing additional pressure on their household finances, resulting in people becoming more risk averse. We hypothesise: *the economic downturn – i.e. the falling GDP – led to a decline in the welfare effort conceived in terms of social expenditures which, in turn, decreased social trust. (H2)*

2.1.2. 'Political society' argument

Uslaner (2002) suggests that social trust relates to feelings of belonging to the same moral community as togetherness begets trustworthiness. During the economic crisis, individuals heard and shared negative news about the crisis, like falling GDP and growth rates, and growing inflation and the public deficit. This made them aware of the crisis even though they might not have experienced a decline in household income or unemployment themselves. A worsening of the macroeconomic situation constitutes a common antagonist against which people living in the same political community can unite (Searing 2013) and helps create a sense of togetherness (Ervasti et al. 2019), thereby raising levels of social trust. We suggest: *the economic downturn – i.e. the falling GDP – led to greater social trust. (H3a)*

The contrasting argument predicts that during the economic crisis feelings of togetherness deteriorate rather than strengthen due to the heightened distributional conflict and competition over scarce resources

(Obert et al. 2019). The argument that scarcity of resources and rivalry generate distrust was made earlier in anthropological studies of ‘amoral familism’ (Banfield 1958; Campbell 1964). The alternative to H3a thus says: *the economic downturn – i.e. the falling GDP – lowered social trust. (H3b)* If mechanisms described in H3a and H3b cancel each other out, we will observe no effect (Flap and Völker 2001; Letki and Mierina 2014).

Similarly, the economic crisis is expected to decrease social trust if it contributes to the rise of income inequality. Most common explanation for the negative relationship is again that when inequality is high people at the top and bottom of the income distribution do not perceive each other as belonging to the same moral community (Uslaner and Brown 2005). A number of studies have confirmed that where income inequality is high, social trust is low (Rothstein and Uslaner 2005; Uslaner and Brown 2005; Jordahl 2007). We thus propose: *the rising income inequality during the crisis decreased social trust. (H4)*

The economic crisis also caused changes in the attitudes regarding political institutions such as political trust, bringing important consequences for social trust. A body of literature within the so-called institution-centred approach to social capital (e.g. Foley and Edwards 1996; Brehm and Rahn 1997; Rothstein and Stolle 2001; Stolle 2003; Bjørnskov and Svendsen 2007) contends that political trust is crucial for social trust to emerge. Because people have no immediate information about the trustworthiness of others whom they do not know personally, they generalise from the fairness in the institutional realm to the fairness and trustworthiness of anonymous fellow citizens, from political trust to social trust (Offe 1999). The emergence of political trust is itself explained with the help of economic and political performance models.

In the economic performance model (Newton 2006), citizens are assumed to have a high level of political trust when the economy is doing well as individuals hold politics partly responsible for the state of the economy. Political trust is expected to decline in response to both aspects of an economic crisis, namely, the deterioration of the general economic situation and individuals’ economic conditions (Bauer 2018). Most recent studies support the view that the economy’s deterioration after the crisis started causing a decline in political trust, particularly in the Southern and Eastern European countries hit the hardest by the crisis and austerity measures (Erkel and van der Meer 2016; Foster and Frieden 2017; Muro and Vidal 2017). We propose the following hypothesis: *the economic crisis – i.e. declining GDP and increasing risk of*

individuals becoming unemployed and facing economic hardship – led to lower political trust which, in turn, reduced social trust. (H5)

The political performance model, in contrast, links political trust and consequently social trust to citizens' evaluation of the welfare state (Kumlin and Haugsgjerd 2017). Many empirical studies have established a relationship between the welfare state and social trust that goes beyond welfare state effort and emphasises the qualitative dimension of the welfare state. They find that social trust is higher among people living in welfare states with universal social programmes and a high degree of decommodification which signals high solidarity and social cohesion (Rothstein and Uslaner 2005; Rothstein and Stolle 2003; Kumlin and Rothstein 2005; van Oorschot and Arts 2005; van Oorschot et al. 2005; Kääriäinen and Lehtonen 2006; Larsen 2007; Kaasa and Parts 2008; Ferragina 2017). In line with this argument, the growing dissatisfaction of citizens with the work of welfare systems in the economic crisis, for example in the fields of education or healthcare which suffered from the strong budget cuts and austerity policies, could have been institutional signs of weakening social solidarity and hence may have led to declining social trust. We thus hypothesise that *the economic crisis – i.e. declining GDP and increasing risk of individuals becoming unemployed and facing economic hardship – had a negative impact on levels of welfare satisfaction which, in turn, lowered social trust directly or indirectly through political trust. (H6)*

Finally, during the Great Recession, citizens became active in political movements, new anti-establishment political parties and action groups in response to what in their view were unsatisfactory government reactions to the crisis (Algan *et al.* 2017). The literature on political trust and political participation states that such political activism is chiefly motivated by political distrust (Stolle et al. 2005; Hooghe and Marien 2013). During the crisis, political trust gave rise to protest that was both inclusive and exclusive; whereas the inclusive and exclusive protesters shared similar levels of political distrust, they differed with regard to key values and political attitudes (Morselli and Passini 2018).⁷ Along with Uslaner (2002), we argue that only inclusive political activism which attempted to protect human rights and a safety net for all, as was the case with much left-wing activism, signalled that people cared for

⁷Morselli and Passini (2018) classify political movements along a continuum from pro-social and inclusive protests (enacted for the sake of the whole of society and including all social groups within the scope of justice) to anti-social and exclusive protests (enacted in favour of one's own group and excluding other social groups from the scope of justice).

each other and hence could be trusted. The left political orientation that embraces equality, social rights and welfare support has been previously shown to be positively related to social capital (van Oorschot et al. 2005). Thus, we predict that the *economic crisis – i.e. the falling GDP - combined with the rising levels of political distrust, led to inclusive political activism which, in turn, increased social trust.* (H7)

2.2. The economic crisis and social networks

We now discuss the relationship between the economic crisis and social networks. The vitality of social networks generally depends on three sets of factors: *opportunities and resources* for forming and maintaining social ties, the *need* for social support that is available in personal ties, and the *propensity for socialising* and establishing new social ties. While the first two sets of factors primarily speak to the ‘resources and opportunities’ argument, the third one largely depends on the political factors and falls under the ‘political society’ argument.

2.2.1. ‘Resources and opportunities’ argument

Participation in social networks reflects the availability of resources (money, time, skills) and opportunities to meet others and maintain contacts with them (Campbell et al. 1986; Offe and Fuchs 2002; Fisher et al. 2004; Kaasa and Parts 2008; Pichler and Wallace 2009; Gelissen et al. 2012; Lance and van de Wefhorst 2012).⁸ The economic crisis strongly affected the resources and opportunities for networking by making people feel uncertain about their own and others’ (financial) well-being and reducing resources available for spending one’s free time. Also, activities to secure one’s living conditions and income generation replaced activities directed to socialising and participation. We propose: *individuals’ declining economic conditions – i.e. increasing risk of individuals becoming unemployed and facing economic hardship – decreased social networks, formal as well as informal.* (H8a)

Alternatively, greater economic strain and the need for social support could be expected to encourage (and not suppress) networking. In this argument, instrumental concerns are key to vibrant social networks (de

⁸For example, the study of volunteers by Fisher et al. (2004) shows that people who are more likely to volunteer are middle-aged, have a university education, are managers or professionals, and work part time. People who live in households with a low income and in economically deprived areas are less likely to volunteer, and when they do they prefer to participate in informal support networks than in formal contexts.

Swaan 1988; Wolfe 1989).⁹ The need for social support during the economic crisis thus represents a mechanism that may have worked in the direction of strengthening rather than weakening social networks. For example, Tokalaki et al. (2016) demonstrated that in central Macedonia the primary networks (family, relatives and friends) that acted as a source of social support became stronger during the economic crisis. Similarly, Bock and Everett (2016) show that in four European cities during the economic crisis publicly minded citizens became more engaged in local communities and civic organisations. This leads to the alternative to H8a: *individuals' declining economic conditions – i.e. increasing risk of individuals becoming unemployed and facing economic hardship – increased social networks, formal as well as informal. (H8b)*

Just as stronger welfare state effort ameliorates the negative impact of economic downturn on social trust, it also helps maintain levels of networking. Increases in welfare effort promote social networks by providing people with additional resources and by maintaining a high level of social services, allowing them to spend more time together and participate in various social activities. Many empirical studies support the 'crowding-in' thesis linking social networks with the size of social spending (Uslaner 2002; Rothstein and Stolle 2001; van Oorschot and Arts 2005; van Oorschot et al. 2005; Kääriäinen and Lehtonen 2006; Larsen 2007; Pichler and Wallace 2007; Gelissen et al. 2012; Visser et al. 2018). For example, Gelissen et al. (2012) found positive impact of social expenditures on formal networks, although there was no relationship with informal networks. We hypothesise that *during the economic downturn – i.e. the falling GDP – the decline in the welfare effort contributed to the decrease in social networks, in particular formal networks. (H9a)*

Once again, there is an argument that claims just the opposite. Proponents of the 'crowding-out' thesis in the context of the economic crisis argue that when the formal systems were unable to respond adequately to the newly emerging needs, social networks became stronger (Wong 2013; Ervasti et al. 2019). Evidence from some countries supports this thesis. For example, Sotiropoulos and Bourikos (2014) contend that the dysfunctional welfare state in Greece has been partly supplanted by social solidarity groups, and the economic crisis may have been a catalyst for empowering the traditionally weak Greek civil society. This leads us to

⁹The argument assumes that the need for informal help leads to more extensive networks. This causal link is empirically questionable since it has been shown that people with stronger needs may not have enough resources to form and maintain more extensive networks (Wall et al. 2001), and that more extensive networks do not always mobilise more social support (Letki and Mierina 2014).

the alternative to H9a: *during the economic downturn – i.e. the falling GDP – the decline in the welfare effort contributed to the rise of social networks, in particular formal networks. (H9b)*

Political activity, protests and action groups provided important opportunities for networking during the economic crisis. Although the prevalent view regards membership in voluntary associations as being conducive to political action (Verba et al. 1995; Leighley 1996; Teorell 2003), we argue that during the economic crisis it was the change in political activism connected with political distrust and anger in response to the inadequate functioning of the welfare state system that gave rise to widescale awareness of the need for solidarity and led to people's greater involvement in all sorts of voluntary activities at the local level aimed at helping others in distress. We therefore suggest that *the economic downturn, combined with the growing political distrust, decreasing welfare effort and welfare satisfaction, led to inclusive political activism that, in turn, enlarged social networks, in particular formal networks. (H10)*

2.2.2. 'Political society' argument

The propensity to socialise and form social ties depends on social and political trust. First, social networks are assumed to depend on social trust since this is a mental prerequisite for building lasting social relationships (Yamagishi and Yamagishi 1994). Empirical evidence reveals (Brehm and Rahn 1997; Stolle 1998) that the two aspects of social capital – social trust and networks – reinforce each other, although the impact of social trust on networks is stronger than the reciprocal impact of networks on trust (Uslaner 2003; van Oorschot and Arts 2005; Sturgis et al. 2012).

Political trust also affects the propensity to socialise. When politics is 'healthy', citizens are encouraged to contribute to the public good by participating in a variety of social activities. Yet, in a situation of pervasive political distrust we can expect the rise of 'disaffected citizens' (Torcal and Montero 2006) who feel powerless and tend to retreat from public life in all of its forms, including social networks (van Oorschot et al. 2006). Combining both arguments, we expect that *during the economic crisis the decline in social and political trust decreased social networks, formal as well as informal. (H11)*

Table 1 presents the study's analytical framework and organises the hypotheses concerned with social trust and social networks with respect to whether they build on the 'resources and opportunities' or 'political society' argument.

Table 1. Analytical framework of the study.

Argument	Social trust	Social networks
Resources and opportunities	Unemployment and economic strain decreased social trust. (H1) The economic downturn reduced the welfare effort which, in turn, decreased social trust. (H2)	Unemployment and economic strain decreased social networks, formal as well as informal. (H8a) Unemployment and economic strain increased social networks, formal as well as informal. (H8b) The economic downturn reduced the welfare effort that, in turn, decreased social networks, in particular formal networks. (H9a) The economic downturn reduced the welfare effort that, in turn, increased social networks, in particular formal networks. (H9b)
Political society	The economic downturn increased feelings of togetherness which, in turn, increased social trust. (H3a) The economic downturn increased the competition for scarce resources which, in turn, decreased social trust. (H3b) The economic downturn increased income inequality which, in turn, decreased social trust. (H4) The economic downturn decreased political trust and welfare satisfaction which, in turn, decreased social trust. (H5, H6) The economic downturn combined with lower political trust and welfare satisfaction promoted inclusive political activism which, in turn, increased social trust. (H7)	The economic downturn combined with lower political trust and welfare satisfaction promoted inclusive political activism that, in turn, increased social networks, in particular formal networks. (H10) The economic downturn combined with lower social and political trust decreased social networks. (H11)

3. Data and methods

Most data are derived from the European Social Survey (ESS rounds 3–6, www.europeansocialsurvey.org) and these are combined with several other international datasets (see below). The data window starts 1 year before the global financial crisis commenced (in 2006) and closes when the economy started growing again (in 2012).

3.1. Social capital

Measurements of social capital were derived from the ESS. *Social* or *generalised trust*, as it is also called, was measured by the question ‘Generally speaking, would you say that most people can be trusted, or that you can’t be too careful in dealing with people?’. This is an established measure of social trust. Answer categories ranged from (0) You can’t be too careful, to (10) Most people can be trusted.

Informal networks are a combination of one's strong and weaker ties measured by the question of how often people meet socially with their friends, relatives or colleagues. Answer categories were: (1) Never; (2) Less than once a month; (3) Once a month; (4) Several times a month; (5) Once a week; (6) Several times a week; and (7) Daily.

Formal networks were operationalised with a question asking whether respondents were members of voluntary organisations. Answer categories were: (0) No; and (1) Yes. In the absence of a better indicator, we assume that membership in civic organisations implies at least some involvement in organisational networks. We know from other studies that active involvement in organisations usually outnumbers those passively involved, although the latter can still reach up to 40% of the membership and varies across the countries (Morales and Geurts 2007). Despite this limitation, we found the variable useful for our purposes.

3.2. Economic factors

While the global financial crisis started in 2007, its severity varied among the countries. The severity of a crisis is often defined in terms of *general domestic product*. During an economic crisis, countries experience a sudden downturn of their economy, most likely resulting in lower GDP. In our analyses, we use GDP per capita in purchasing power parities (in 10k) to represent the economic crisis' severity. These values were derived from the World Bank.

The gini-index is used as a measure of *household disposable (net) income inequality*. We use version 3.4 of the Standardized World Income Inequality Database (SWIID) (Solt, 2016). Selection criteria where that the whole area of the country and all people of all ages should be covered, and that the quality as recorded by the SWIID should at least be average or high. In case there was still more than one option, we used the option that was most common in that country, or else among our whole selection.

Besides GDP and income inequality, we included some other economic factors that are more closely related to the individual experience of economic crisis. First, we included *unemployment*. It is one of the most serious and visible direct consequences of an economic crisis for an individual's standard of living. Indications of whether respondents were unemployed in the last 7 days and actively looking for a job were derived from the ESS.

Second, we used a measure of *economic strain*. The ESS inter alia asks respondents how they feel about their household situation. They can

answer on a four-point scale with the answer categories: (1) Living comfortably on the present income; (2) Coping on the present income; (3) Difficult on the present income; and (4) Very difficult on the present income. As our argument is about economic strain, we distinguished between living comfortably and coping with the present income (1 and 2) and (very) difficult (3 and 4).

3.3. Political factors

Social expenditures were derived from several sources to reduce the number of missing values. The main source is Eurostat that offers information about social protection expenditure per capita. For Albania, Kosovo, Russia and Ukraine, they were derived from the OECD and World Bank by multiplying figures about the expenditures as a percentage of GDP by the GDP per capita of those countries (the correlation for the available countries was .78). Since we were studying within-country changes in the welfare effort over time, we wanted a measure that does not reflect changes in GDP.

Other political factors were derived from the ESS data.

Satisfaction with the welfare state included items regarding how satisfied people were with the education system and health system on a scale from (0) meaning Not at all satisfied, to (10) meaning Very satisfied. The two variables formed one scale (Cronbach's $\alpha = .77$), which was again created by taking the mean of the items and aggregating them by country-year combination.

Political trust was measured by items concerning how much trust people had in their countries' parliament, politicians, and political parties. Answer categories ranged from (0) No trust at all, to (10) Complete trust. These variables together formed one scale (Cronbach's $\alpha = .90$), which was established by taking the mean of the items and aggregating them by country-year combination.

Left political activism includes everyone who was politically active (i.e. worked in a political party or action groups, took part in a lawful public demonstration, wore or displayed a campaign badge) and had a left-wing ideology (scored lower than 4 on a scale where 1 indicated left wing and 10 right wing). In the absence of a more direct measure of an individual's acceptance of the notions of social rights, economic equality and social inclusion, we used a question where the respondents placed themselves on a left-right political spectrum. We assumed these particular social values are widespread among left-wing activists, although we are

aware there is a difference between the traditional and the new left with respect to issues of social inclusion.

3.4. Control variables

We use several standard control variables. They include the respondent's *age*, *gender*, *education in years* and *marital status* (in five possible groups: married, separated, divorced, widowed or never married). Moreover, we control for whether the respondent was an 'immigrant' (coded as whether the respondent or either parents was born abroad) and control for religious attendance (ranging from (1) Every day, to (7) Never).

3.5. Analytical strategy

So-called country fixed-effects models are run within a structural equation framework (Fairbrother 2014; Giesselman and Schmidt-Catran 2018). Basically, a linear (structural equation) regression model is estimated for every 'dependent variable', controlling for country dummies. As a result, we only look at within-country changes. In addition, time dummies are included to control for average changes across the waves.

After the listwise deletion of missing values and selecting countries that participated at least twice in the data – since we are interested in within-country differences – we use information from 160,027 individuals nested in 25 countries and 91 country-years. Note that the listwise deletion results in highly similar results for imputation techniques as we are considering within-country changes, assuming that selections of missing values on a variable do not differ within a country over time. Collinearity was checked by computing the correlations between the variables, inspecting the standard errors of the regression outcomes, and by leaving variables out that might be collinear to others. No indications of collinearity were found.

Table 2 presents descriptive statistics for all variables.

4. Results

4.1. Trends in social capital, and political and economic factors between 2006 and 2012

We first describe the changes in social capital (social trust, formal and informal networks) along with changes in the political and economic variables for the countries across time. Figure 2 shows how these variables changed in

Table 2. Descriptive statistics.

Variable	Mean	Std. Dev.	Min	Max
Gender	0.5	0.5	0	1
Age	49.4	17.9	18	99
Education years	12.4	4.1	0	25
Married	0.5	0.5	0	1
Separated	0.0	0.1	0	1
Divorced	0.1	0.3	0	1
Widowed	0.1	0.3	0	1
Never married	0.2	0.4	0	1
Religious attendance	5.4	1.5	1	7
Native	0.9	0.4	0	1
GDP (in 10k)	3.2	1.2	0.72	6.54
Unemployed	0.0	0.2	0	1
Soc. expenditures	6.8	4.3	0.50	19.43
Economic strain	0.3	0.5	0	1
Income inequality	29,75	3,68	22,5	37,7
Welfare satisfaction	5.2	2.2	0	10
Political trust	3.6	2.3	0	10
Political activism	0.1	0.2	0	1
Social trust	4.9	2.5	0	10
Formal networks	0.1	0.3	0	1
Informal networks	3.8	1.6	0	6

n = 160,027

Europe between 2006 and 2012 depending on the severity of the crisis. The severity of the crisis was calculated based on the following economic variables: GDP per capita in ppp, unemployment, and economic strain. As we are principally interested in how these variables change, we first calculated how much they changed from 2006 onwards. Afterwards, we calculated the means and standardised them, and then took the average of the standardised change scores of (the inverse of) GDP, unemployment and economic strain. The eight countries with the highest score were considered to have suffered a weak impact of the economic crisis, the next nine a medium impact, and the last eight a strong impact. Strong-impact-crisis countries (hereinafter known as ‘strong-crisis countries’) are in order of severity: Ireland, Spain, Greece, Lithuania, Croatia, Cyprus, Portugal and Hungary. Medium-crisis countries are Estonia, Ukraine, the UK, Bulgaria, Czech Republic, France, Denmark, Sweden and Finland. Weak-crisis countries include Belgium, the Netherlands, Norway, Switzerland, Russia, Slovakia, Poland and Germany.

Panel A shows the trends in social capital. In the medium- and strong-crisis countries, social trust dropped slightly during the crisis (by about 4 percent). However, after having fallen after the economic crisis started, social trust increased again to almost the pre-crisis level. In the weak-crisis countries, social trust did not drop at all, but even increased slightly.

Larger changes are observed in the formal networks established among members of civic associations. Like with the changes in social trust, formal

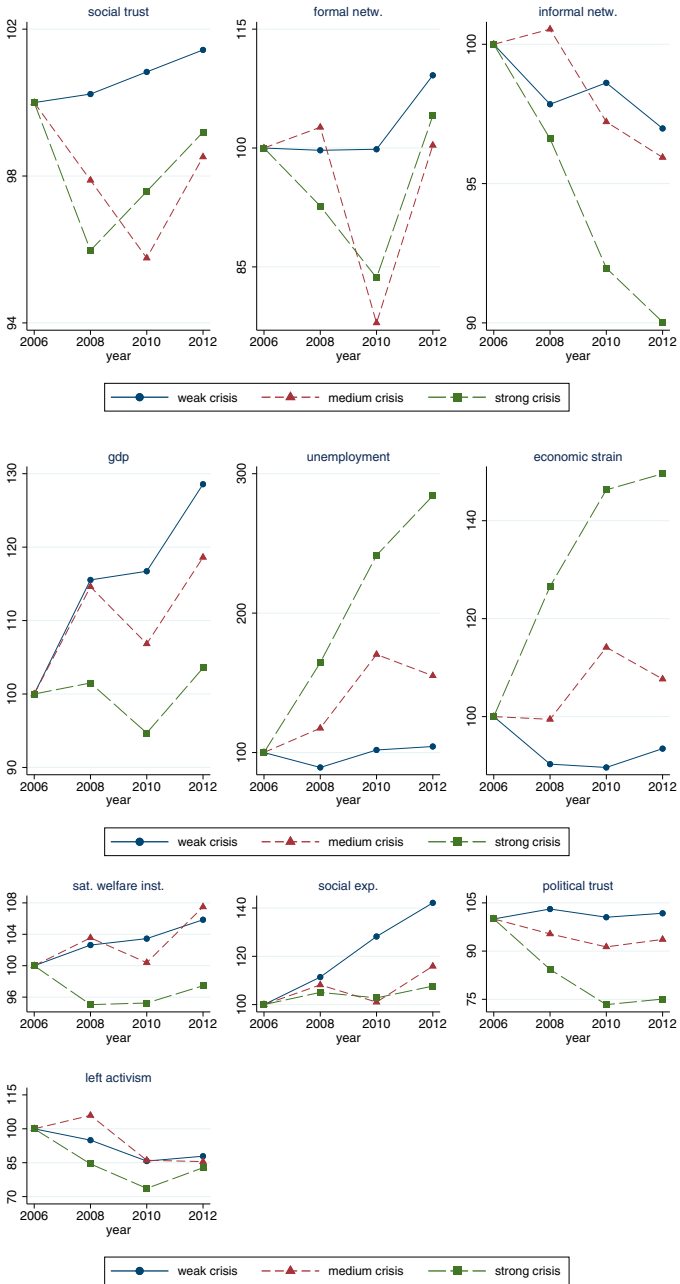


Figure 2. Trends in social capital, economic and political factors in 24 European countries.

networks declined during the economic crisis in the strong- and medium-crisis countries where the decline was up to 20 percent. Once more, after the peak of the economic crisis, from 2010 onwards, formal networks started to increase again. On the contrary, in the weak-crisis countries there was no decline but an increase in participation in civic associations by about 10 percent compared to the pre-crisis level.

Informal networks shrank considerably in all three groups of countries. However, the decline was again especially prominent in the strong-crisis countries. Unlike the trends in social trust and formal networks, the drop in informal networks continued throughout the observed period, and by 2012 the informal networks had declined by over 10 percent in the strong-crisis countries compared to just 3 percent in the weak-crisis countries.

Panel B shows the changes in the economic factors. The graphs indicate that all groups of countries experienced (on average) a significant decline in economic activity and a rise in unemployment, although the changes were – by definition – larger in the strong-crisis countries. The disposable income inequality decreased until 2012 in all three groups of countries although the changes were small.

Finally, panel C illustrates the changes in the four political variables. Similar to the trends in social trust and formal networks, satisfaction with the welfare system, political trust, and left-wing activism declined in the strong-crisis countries after the crisis started and grew slightly after 2010. Although more people started to rely on social expenditures, they increased only slightly in the strong-crisis countries, probably due to the austerity measures. In contrast, in the weak-crisis countries such expenditures increased by about 40 percent in the same period. These increases are largely attributed to Slovakia in which expenditures rose by nearly 80 percent. After 2010, we again see a slight recovery in these figures in the strong- and medium-crisis countries.

These results allow the following preliminary conclusions to be drawn regarding short-term changes in social capital during the economic crisis: first, social networks were more strongly hit than social trust; second, the medium- and strong-crisis countries have similar trends in social trust and formal networks (although the levels are different), namely, after the drop following the beginning of the crisis, social trust and formal networks show a recovery after 2010, while the weak-crisis countries remained high on both indicators and even increased; and third, informal networks decreased in all groups of countries and have not returned to the pre-crisis level. The changes in social capital across the three economic groups broadly reflect the economic and political dynamics.

4.2. Explaining the heterogeneity in social capital changes between 2006 and 2012

We now turn to our country fixed-effects models. The outcomes are presented in Table 3 and Figure 3.¹⁰ To simplify the interpretation, the fixed effects and control variables are excluded.

4.2.1. Social trust

We start with Panel C in Table 3 in order to observe the direct effects of economic variables on social trust. GDP per capita in ppp (the general measure of the economic situation in a country) and economic strain and unemployment (which are argued to be closely related to the individual experience of the economic crisis) have a direct effect on social trust, albeit in different directions. Social trust declines directly due to increasing unemployment and economic strain, thereby supporting Hypothesis 1 ($\beta_{\text{economic strain}} = -0.057$, $\beta_{\text{unemployment}} = -0.012$) saying that the declining economic situation of individuals and households lowers social trust due to greater risk-aversion.

Further and in line with Hypothesis 3a, social trust increases as GDP decreases ($\beta_{\text{gdp}} = -0.078$), net of other economic and political variables. This supports the thesis that the economic crisis as a common antagonist contributes to feelings of togetherness and solidarity. By contrast, we do not find evidence in support of Hypothesis 3b, which states that the economic climate’s deterioration during the economic crisis gave rise to tougher competition for the scarce resources, thereby leading to less social trust. Even if this mechanism is present, it is weaker than the

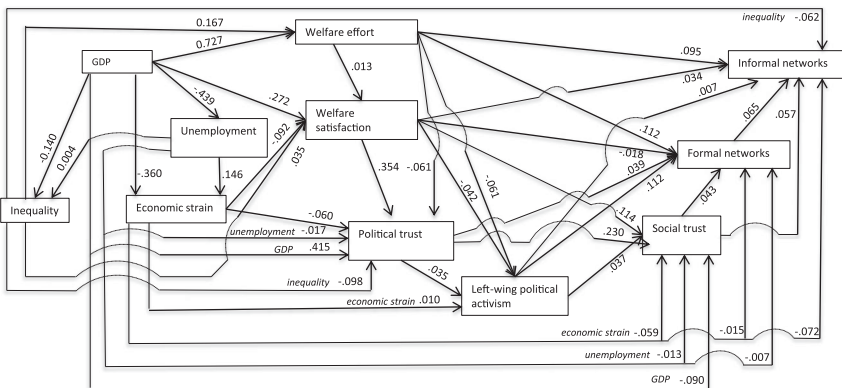


Figure 3. Path diagram of direct and indirect effects of economic crisis on social capital ($\beta \geq .010$).

Table 3. Country fixed-effects structural equation model.

	Panel A: Economic effects															
	Unempl.				Inequality			Eco. strain								
	b	beta	se		b	beta	se	b	beta	se						
<i>Economic factors</i>																
GDP pc in ppp	-.071	-.396	.004	**	-.781	-.257	.023	**	-.134	-.349	.008	**				
Unemployed					.041	.002	.014	**	.293	.136	.005	**				
Income inequality									.006	.047	.001	**				
<i>Total effects</i>																
GDP pc in ppp	-.071	-.396	.004	**	-.784	-.258	.023	**	-.159	-.415	.008	**				
Unemployed					.041	.002	.014	**	.293	.136	.005	**				
Income inequality									.006	.047	.001	**				
Panel B: Effects on political factors																
	Social exp.				Satisf. welf.			Political trust			Left-wing act.					
	b	beta	se		b	beta	se	b	beta	se	b	beta	se			
<i>Economic factors</i>																
GDP pc in ppp	2.19	.615	.010	**	.251	.136	.041	**	1.021	.542	.040	**	.004	.018	.005	
Unemployed	.013	.001	.007	+	-.005	0	.023		-.181	-.017	.022	**	.001	0	.003	
Income inequality	-.043	-.037	.001	**	-.037	-.061	.004	**	-.036	-.059	.004	**	.001	.012	.001	
Economic strain	.003	.000	.003		-.463	-.096	.012	**	-.278	-.057	.012	**	.005	.01	.002	**
<i>Political factors</i>																
Social expenditures					.005	.009	.009		-.028	-.052	.008	**	-.003	-.048	.001	*
Welfare satisfaction									.366	.358	.002	**	-.005	-.043	.000	**
Political trust													.004	.035	.000	**
<i>Total effects</i>																
GDP pc in ppp	2.222	.624	.010	**	.364	.198	.036	**	1.178	.626	.038	**	-.001	-.006	.005	
Unemployed	.012	.001	.006	+	-.142	-.014	.022	**	-.316	-.030	.023	**	.002	.001	.003	
Income inequality	-.043	-.037	.001	**	-.040	-.066	.004	**	-.051	-.083	.004	**	.001	.014	.000	+
Economic strain	.003	.000	.003		-.463	-.096	.012	**	-.448	-.091	.012	**	.006	.011	.002	**
Social expenditures					.005	.009	.009		-.026	-.049	.009	**	-.003	-.051	.001	**
Welfare satisfaction									.366	.358	.002	**	-.003	-.031	.000	**
Political trust													.004	.035	.000	**

Panel C: Effects on social capital

	Social trust				Formal netw.				Informal netw.			
	b	beta	se		b	beta	se		b	beta	se	
Economic factors												
GDP pc in ppp	-.159	-.078	.047	**	0	-.001	.007		.047	.035	.032	
Unemployed	-.138	-.012	.026	**	-.012	-.007	.004	**	.012	.002	.018	
Income inequality	.021	.032	.004	**	.001	.007	.001		.012	.027	.003	**
Economic strain	-.308	-.057	.014	**	-.012	-.016	.002	**	-.257	-.074	.009	**
Political factors												
Social expenditures	-.01	-.017	.010		.008	.101	.001	**	.022	.059	.007	**
Welfare satisfaction	.13	.117	.003	**	-.003	-.018	.000	**	.027	.037	.002	**
Political trust	.244	.224	.003	**	.006	.039	.000	**	-.003	-.005	.002	+
Left-wing activism	.35	.035	.022	**	.154	.112	.003	**	.043	.007	.015	**
Social capital												
Social trust					.006	.041	.000	**	.036	.055	.002	**
Formal networks									.295	.062	.012	**
Total effects												
GDP pc in ppp	.196	.096	.043	**	.026	.094	.006	**	.147	.110	.028	**
Unemployed	-.323	-.028	.027	**	-.018	-.011	.004	**	-.082	-.011	.017	**
Income inequality	.003	.004	.005		.000	.002	.001		.009	.020	.003	**
Economic strain	-.475	-.089	.014	**	-.015	-.020	.002	**	-.289	-.083	.009	**
Social expenditures	-.016	-.028	.010		.007	.092	.001	**	.024	.063	.007	**
Welfare satisfaction	.218	.196	.003	**	.000	.001	.000		.033	.046	.002	**
Political trust	.245	.225	.003	**	.008	.053	.000	**	.008	.011	.002	**
Left-wing activism	.350	.035	.022	**	.156	.113	.003	**	.102	.016	.015	**
Social trust					.006	.041	.000	**	.037	.057	.002	**

Note: ** $P < .01$; * $P < .05$; + $P < .10$; Country and year fixed effects are included. Control variables (gender, age, education, marital status, religious attendance, and native are included, but not presented).

mechanism of strengthened togetherness, resulting in the negative net effect of GDP on social trust.

With respect to inequality, we see that it has weak and positive direct effect on social trust while the total effect is non-significant meaning we cannot confirm Hypothesis 4 which predicts that equality breaths trust. Our results are in line with Steijn and Lance (2011) who found that in the context of Western industrialised countries and when controlled for the national wealth the effect of inequality on social trust disappears. But the positive net effect obtained after controlling for both national wealth and political factors still presents a puzzle. We suggest that since the observed decrease in inequality in the European countries in the first phase of the crisis was largely a result of the decreasing market opportunities and income of the upper and middle classes (Gokman and Morin 2019), this contributed to their economic pessimism and consequently to distrust. Studies show that social trust is indeed related to individual factors like optimism (Uslaner 2003) and economic success (Delhey and Newton, 2003).¹¹

Panel B in Table 3 shows how the economic factors affect the political factors which figure as mediating variables. A drop in GDP, rise in unemployment and increase in economic strain – all indicating economic crisis – are associated with a decrease in social spending, lower satisfaction with the welfare state systems and lower political trust. For three political variables, the effect of GDP is strongest (for social spending $\beta_{\text{gdp}} = 0.615$, for welfare satisfaction $\beta_{\text{gdp}} = 0.136$, for political trust $\beta_{\text{gdp}} = 0.542$). This conclusion is not trivial for the political trust as it tells us that in the economic crisis people establish political trust more on the basis of evaluating the general economic climate in the country than their own, personal economic circumstances.

In addition to economic factors, political trust shows strong positive relationship with the satisfaction with the welfare state ($\beta_{\text{welfare state}} = 0.358$) as suggested by the political performance model. The relationship with welfare effort is, on the other hand, negative ($\beta_{\text{welfare effort}} = -.052$), indicating that when controlled for the national wealth and satisfaction with the welfare state, the increase in welfare effort reflects stronger

¹⁰Note that in order to avoid over-specification we only included the relationships we wanted to test.

¹¹It is important to note that our results differ also from the studies using the composite measure of social capital that includes, among others, political variables such as political trust (see, for example, Ferragina 2013). Political trust has negative relationship with the disposable income inequality and it mediates the linkage between the inequality and social trust. When included in the index of social capital, political trust contributes to the negative relationship between the inequality and social capital.

needs for social support in the time of crisis which gives rise to general dissatisfaction with the politicians and the working of political institutions.

In contrast to what was expected, the economic variables have almost no impact on left-wing political activism. Only economic strain promotes it, but the effect is very weak ($\beta_{\text{economic strain}} = .010$). Increased left-wing political activism appears to be more a reaction to the declining welfare effort and welfare state dissatisfaction than to the economic downturn *per se* ($\beta_{\text{welfare effort}} = -.048$, $\beta_{\text{welfare satisfaction}} = -.043$). Although welfare effort, welfare satisfaction and political trust all affected political activism in the crisis, they did so in different ways: left-wing political activism was promoted by a *decrease* in social spending and satisfaction with the welfare state systems, and by an *increase* in political trust. This suggests that dissatisfaction with the welfare state fuelled left-wing political activism by giving it a motive, while activism flourished in circumstances where it was more and not less trust in political institutions.¹²

Panel C reveals that several political variables affect social trust and thus mediate the effect of economic crisis. A decline in satisfaction with the welfare state systems (the subjective or evaluative aspect of the welfare state) and political trust can explain the decline in social trust during the economic crisis, which supports Hypotheses 5 and 6. Not surprisingly, the effect of political trust is biggest ($\beta_{\text{political trust}} = 0.224$, $\beta_{\text{welfare satisfaction}} = 0.117$) while the impact of welfare state satisfaction is both direct and indirect through political trust. Moreover, the impact of left political activism on social trust is significant and positive, providing support for Hypothesis 7 ($\beta_{\text{left activism}} = 0.053$). Yet in contrast to Hypothesis 2, social expenditures are not directly associated with social trust, a relationship we interpreted in terms of risk-aversion.¹³

In sum, the analysis confirms that in the case of social trust political variables are important mediators between the economic variables and social capital. For instance, when taking the indirect effects into account

¹²We feared these opposite effects may have been due to the correlation between the measures ($r_{\text{welfare satisfaction, political trust}} = 0.358$); however, the effects remained when we left either of these variables out. The result probably reflects the fact that our variable of political activism includes very different forms of political action and not merely political protest for which we would expect a negative relationship. In addition, this result is in line with the recent findings of Katsanidou (2015) who shows that political protest is triggered by a lack of confidence in the implementing rather than the representative institutions, and with Christiansen (2014) who found that both high and low political trust can lead to political protest when coupled with subjective political efficacy.

¹³Additional analysis shows that social expenditures and social trust have a weak net curvilinear relationship. The positive effects decline when expenditures increase ($B_{\text{social expenditures}} = .195$, $B_{\text{social expenditures squared}} = -.007$), indicating that the rise in expenditures did not satisfactorily compensate for the income lost due to the economic crisis.

the total standardised effect of GDP on social trust changes from -0.078 to 0.096 . Thus, a one standard deviation *drop* in GDP is associated with a 0.096 drop in social trust.

In addition, the economic crisis had double impact on social trust. It lowered social trust by worsening the individual's economic situation and attitudes as regards the institutions such as welfare state satisfaction and political trust. But the economic crisis also contributed positively to social trust by giving rise to feelings of togetherness in the face of a common adversary and massive left-wing political activism although these effects were rather weak.

4.2.1.1. Social networks. Panel C shows that GDP, as a measure of the economic downturn, has no direct impact on social networks. Unlike social trust, the direct impact of economic crisis on social networks is mainly due to changes in individuals' economic conditions, in particular economic strain. A rise in unemployment and economic strain of households is negatively associated with formal ($\beta_{\text{unemployment}} = -0.007$; $\beta_{\text{economic strain}} = -0.016$) and informal social networks ($\beta_{\text{economic strain}} = -0.074$). These findings support Hypothesis 8a and contradict Hypothesis 8b. Thus, although the need for social support increased during the economic crisis, social networks shrank. The increased need itself was insufficient to lead to more extensive networks, understood in terms of associational membership and frequency of informal contacts.¹⁴

Another indication of the importance of resources for networking comes from the effects of the welfare effort: the reduced welfare state effort during the crisis contributed to smaller formal ($\beta_{\text{welfare effort}} = 0.101$) and informal networks ($\beta_{\text{welfare effort}} = 0.059$). Lower social spending implied fewer cash benefits and direct in-kind provision of goods and services, which all made the resources for social activities less available. Consequently, we can accept Hypothesis 9a, which is in line with the 'crowding in' thesis. But there is also some indirect support for Hypothesis 9b formulated in terms of 'crowding out' thesis. Namely, there is a significant, albeit weak negative relationship between satisfaction with the welfare state systems and formal networks

¹⁴The reason for our finding that individuals' economic conditions reduced informal networks probably lies in the indicator. We used a question which asks about the frequency of contacts with very strong as well as weak ties. The results might have been different if the question was distinguishing between these two types of social ties. Also, we should be careful while interpreting these results because the indicators we use do not allow us to say whether during the economic crisis networks became more or less intensive. It may well be that people engaged in more substantive exchanges of goods and information despite participating and socializing less.

($\beta_{\text{welfare state}} = -0.018$), meaning that in the crisis the growing dissatisfaction with how the welfare systems were functioning, which was itself a consequence of the reduced welfare effort, led to more self-organisation on the part of society, resulting in greater participation in civil associations. It appears that civil society was galvanised by the weaker performance of the welfare systems although, once again, the direct impact of the reduced availability of resources seems to be much more important.

Moreover, political activism had a positive effect on participation in formal networks during the crisis, confirming Hypothesis 10 ($\beta_{\text{left activism}} = 0.112$). In fact, this effect is as strong as that of the welfare effort. It proves the role of political activism in raising awareness of the importance of solidary social engagement on the local level.

Finally, in accordance with Hypothesis 11, political trust and social trust encourage participation in social networks. Formal networks are promoted by both social and political trust (for formal networks $\beta_{\text{political trust}} = 0.039$, $\beta_{\text{social trust}} = 0.041$), while informal networks depend on social trust ($\beta_{\text{social trust}} = 0.055$). Informal networks were also positively affected by the participation in the formal networks ($\beta_{\text{formal networks}} = 0.062$). Surprisingly – the rising inequality suppressed social capital, i.e. informal networks ($\beta_{\text{inequality}} = 0.027$), which can again be explained in terms of the negative impact the crisis on the market opportunities and income of the upper and middle classes.

In sum, the economic crisis had positive and negative impact on social capital observed through social networks. It reduced the extensiveness of social networks in by worsening individuals' economic situation and restraining the welfare effort, as well as by lowering political and social trust. On the other hand, it increased the extensiveness of formal networks by generating dissatisfaction with the working of the welfare state and promoting left-wing political activism.

These results indicate that when it comes to social networks the economic crisis' impact was again mediated by several political variables in an important way. For instance, when taking account of the indirect effects, the total standardised effect of GDP on formal networks changes from -0.001 to 0.094 , and for informal networks from 0.035 to 0.110 . The positive sign of the coefficients indicates that – as GDP dropped – formal and informal social networks shrank in reaction to the economic crisis.

5. Methodological considerations

Although our data are helpful for showing and examining the relationship between the economic crisis and social capital, some limitations need to be addressed. First, we relied on data for 35 countries for a relatively short time period, and the ESS is conducted every 2 years. This restricts analytical possibilities. For example, it prevented the issue of reverse causality (e.g. through lagged effects) from being studied because that would have required more data.

Second, by looking at within-country differences we were able to overcome many measurement issues and to rule out stable within-country confounders. Yet, this does not guarantee important control variables were not overlooked. Therefore, we cannot make strong causal claims. In addition, by looking at within-country changes over a shorter period we might have missed long-term effects and interactions. The lack of true panel data also prevented us from performing the analysis at the individual level.

Third, the measurements of social capital were limited. Being a member of formal institutions is actually a 'rest' category. We do not know what kind of organisation people had in mind. Moreover, informal networks are measured by how often one meets with one's family, friends and relatives, but frequency of contact is a limited indicator of informal networking. We were also unable to distinguish between weak and strong social ties and thus do not know if the crisis had a different impact on these two parts of informal networks.

6. Conclusion

Our main conclusion is that changes in the economy influenced social capital during the economic crisis; however, the economic factors had both a direct and indirect impact that ran through various political factors. This means that policy makers had some freedom to manage the economic crisis in ways that would not be detrimental to the social fabric of their countries, even though they were constrained by the economic circumstances.

The impact of economic and political factors was interpreted in terms of the 'resources and opportunities' and 'political society' arguments. A drop in GDP and welfare state effort coupled with increasing unemployment and economic strain all reduced the resources and opportunities for people to engage in social activities and to build social networks, which led to less extensive formal and informal networks. Economic strain and unemployment also increased risk-aversion among people and thereby

decreased social trust. All these findings support the ‘resources and opportunities’ argument. On the other hand, we can see that social trust and networks vary also in response to changing attitudes towards institutions, in particular declining welfare state satisfaction and political trust, which is captured in the ‘political society’ argument.

The study emphasises the need to examine different aspects of social capital separately. Comparing the magnitude of changes in different aspects of social capital between 2006 and 2012, we may conclude that social networks, particularly informal networks, were affected more than social trust. We also show that the social mechanisms explaining the relationship between the economic crisis and different aspects of social capital were not the same. In fact, changes in social trust and formal networks can especially be explained by the impact of the political factors, while variations in informal networks are mainly due to the changing economic circumstances.

The overall impact of the economic crisis on social capital was negative; the economic crisis reduced both social trust and formal and informal networks, and thus bonding and bridging social capital. Despite the greater need for interpersonal social support, the falling GDP generally led to less extensive formal and informal networks and lowered social trust. As mentioned earlier, less extensive networks do not necessarily mean that people are getting less social support from the remaining social ties, but it does mean that the sources of social support are less numerous and probably also less diverse.

However, some mechanisms contributed to higher levels of social capital and counteracted the negative scenario. First, the rising feelings of togetherness that stemmed from the declining macroeconomic situation perceived as a common antagonist contributed positively to social trust. Second, left-wing political activism that emerged as a critical reaction to the welfare state politics boosted participation in civic associations by publicly promoting equality and social rights. Third, there is a direct positive link between dissatisfaction with the work of the welfare state system and a more vibrant civil society trying to compensate for the weaknesses of the welfare state. Thus, economic crisis gave rise to civic networks directly or indirectly through the political mobilisation.

The disposable income inequality slightly decreased in the period 2006–2012. The changes in inequality affected social capital in an unexpected way: the total effects of decreasing inequality on social capital are mostly non-significant and in some cases negative. We suggest this is because of the way the equality was brought about, namely by shrinking

the economic opportunities and income at the top of the socio-economic ladder, leading to pessimism.

Finally, our study is about short-term changes in social capital due to the economic recession in Europe. Although Putnam (1993, 2000) suggests that social capital takes a long time to vary, we show that also events which come as a shock for societies, such as an economic crisis and by the same token a war, large-scale political movement or revolution, have the capacity to change everyday patterns of sociability (networks), and to a smaller extent values (social trust). These changes are a product of complex economic and political dynamics involving various mechanisms that can lead to contradictory results. We assume that the long-term impact of such events or shocks depends very much on how deep they cut into the everyday practices and strategies of people and how they relate to the underlying structural pressures.

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