

# **Economic Strain and Perceptions of Social Cohesion in Europe: Does Institutional Trust Matter?**

Forthcoming in *European Journal of Political Research*

Prof. Rhys Andrews

Sebastian Jilke

Prof. Steven Van de Walle

Cardiff Business School

Department of Public Administration

Cardiff University

Erasmus University Rotterdam

[AndrewsR4@cardiff.ac.uk](mailto:AndrewsR4@cardiff.ac.uk)

[jilke@fsw.eur.nl](mailto:jilke@fsw.eur.nl)

[vandewalle@fsw.eur.nl](mailto:vandewalle@fsw.eur.nl)

*Contact author*

Please cite as: Andrews, R., Jilke, S., & S. Van de Walle (forthcoming): 'Economic Strain and Perceptions of Social Cohesion in Europe: Does Institutional Trust Matter?', *European Journal of Political Research*, in press.

# **Economic Strain and Perceptions of Social Cohesion in Europe: Does Institutional Trust Matter?**

**Rhys Andrews, Sebastian Jilke and Steven Van de Walle**

The degree to which different social groups get along is a key indicator of the cohesiveness of a society. This study examines perceptions of social cohesion amongst Europeans and explains variations in those perceptions by considering the separate and combined effects of economic strain and institutional trust. Analyses were conducted with the 27 member countries of the EU based on the Eurobarometer 74.1 on poverty and social exclusion conducted in 2010. Results show that individuals living in households experiencing economic strain perceive social cohesion to be weaker than their less economically hard-pressed counterparts. By contrast, individuals trusting their political institutions perceived there to be higher levels of cohesion. Furthermore, institutional trust substantially moderates the negative relationship between economic strain and perceptions of cohesion. These results are robust to various model specifications. Moreover, extending the analysis revealed that this moderating effect held when considering social relations between the poor and rich and between different racial and ethnic groups. Theoretical and practical implications of the results are discussed.

**Key words:** Social cohesion; economic strain; institutional trust; Europe; quantitative analysis

## **Introduction**

Concerns about social cohesion within and across the member states of the European Union (EU) have been a defining feature of the recent history of the union (Klingemann & Weldon, 2012; Novy, Swiatek & Moulaert 2012). As the effects of globalization and transition to a post-Fordist economy have gathered pace, the pursuit of social cohesion has become central to the project of European integration (Faludi 2007). The European debates about cohesion initially focused on territorial inequalities in the European space, especially in terms of access to public services following market liberalization (Héritier 2001). In the wake of the Lisbon agenda, attempts to reconcile the contradictions between the economic and social logics within the European project have been supplemented with an interest in the quality of social relations within Europe's cities and regions (Council of Europe 2007). Indeed, as the EU has continued to expand, so too has interest in the strength of the social bonds within its borders. The recent Eastern enlargements and the potential accession of Turkey, have in combination with the impact of the global financial crisis and the subsequent troubles of the Eurozone, arguably placed more pressure on the relations between the social groupings within Europe countries than at any time in the post-war period (European Commission 2011).

The economic crisis has led to a reemergence of social tensions, at least in public debate if not always in reality, between rich and poor, social classes, young and old and different ethnic groups. High youth unemployment has generated resentment among the young about the wealth and pensions of the old and fuelled discussions about the affordability of the current welfare state arrangements. Mass dismissals and frequent strikes have re-emphasized social class struggles, and classic tensions between rich and poor have found a new vocabulary in slogans such as 'we are the 1 per cent'. With unemployment in many EU countries at record levels, it seems likely that the goal of a more cohesive Europe has been seriously threatened by the increased strain on household finances in most countries. In fact,

news stories from across the continent point towards the flaring of social tensions as unemployment soars and governments make cuts to the public sector. The relationship between economic strain and perceived social cohesion within European countries is therefore a timely and pertinent subject for empirical investigation. Yet, despite the high political visibility and salience of the issue, little attention has been devoted to exploring what shapes Europeans' perceptions of the relations between different social groups.

To date, rather than seek to capture the quality of inter-group relations, quantitative research has tended to use indicators of generalized trust as a proxy for social cohesion (e.g. Delhey 2007; Vergolini 2011). Thus, despite the extensive academic and policy debates about social cohesion in Europe (see Novy, Swiatek & Moulaert 2012), scant research has systematically explored the determinants of Europeans' perceptions of how well different social groups get along (though see Green, Janmaat & Cheng 2011; and Whelan and Maitre, 2005). Furthermore, little is known about the boundary conditions of the relationship between economic strain and social cohesion, especially the role that trust in national political institutions might play in influencing that relationship. Institutional trust is a key indicator of democratic health, and is an important predictor of positive social attitudes, including respect for, and tolerance of, social heterogeneity (Boeckmann & Tyler, 2002). As such, it seems logical to suppose that citizens who trust their political institutions will be better able to weather the centrifugal social forces associated with economic strain.

This paper uses multivariate statistical techniques to explore the independent and combined effects of economic strain and institutional trust on Europeans' perceptions of the relations between the major social groupings within their country. The paper begins by discussing theories of social cohesion, before hypotheses on the relationships between economic strain, institutional trust and perceptions of social cohesion are developed. The data and methods for our analysis are then identified and described, before the results of our statistical modeling are presented, and theoretical and practical implications explored.

## **Theoretical background**

Social cohesion is often regarded as a political term or ‘catchword’, which can be utilized and mobilized by policy-makers to capture a certain sense of idealized togetherness within society (Bernard 1999). In this respect, the on-going debates about social cohesion in Europe represent a political response to the impact of macro-economic and societal trends over which political actors have comparatively little control. Yet, the ideas and concepts that lie behind these debates about the cohesiveness of European societies are of considerable theoretical interest and pedigree. Indeed, social science has long contained wide-ranging discussions about the causes and consequences of variations in social cohesion (e.g. Durkheim 1984; Putnam 2000; Tonnies 1955).

Broadly speaking, social scientists regard communities and societies as cohesive when aggregate level conditions ‘are producing positive membership attitudes and behaviours’ (Friedkin 2004: 410). In this respect, social cohesion can be conceptualised as a latent construct that cannot be directly observed, but rather is composed of separate though inter-related objective and subjective dimensions that are susceptible to observation. There is now a growing literature focused on the definition and measurement of the different dimensions of social cohesion (see especially Berger-Schmitt 2000; Chan, To & Chan 2006; Dickes & Velentova 2012). Many scholars suggest that this work reflects two broad approaches to understanding social cohesion. One focused on the shared norms and values that bind people within a community together and another focused on the actual quality of the social relations between those people (Delhey 2007); though, such relations may of course be the product rather than an indicator of cohesiveness.

Several author(s) have striven to bring together the norms and relational-based approaches to social cohesion in the analytical frameworks that they develop (e.g. Chan, To & Chan 2006; Kearns & Forrest 2000). However, in this paper, we do not seek to offer an all-

encompassing evaluation of the effects of economic strain on the multiple dimensions and indicators of social cohesion identified in the theoretical and methodological literature. Rather, we concentrate our attention on a relational approach to understanding perceptions of social cohesion since this approach encapsulates the concerns with the relations between different social groups, which are currently at the heart of debates about the cohesiveness of European societies. Thus, we do not explore what might shape the existence of a shared set of values that binds together Europeans from different countries or whether perceptions of economic strain influence the propensity of people to engage in positive pro-social activities. Instead, we aim to empirically examine the determinants of one particular aspect of social cohesion that has so far been under-studied: the perceived degree of tension between different social groups. This means we approach the concept at the micro-level of interactions between individuals and groups, and not as a characteristic of an aggregate social unit, such as a neighbourhood, region or country.

The extent to which diverse social groups are able to harmoniously co-exist is an indicator of social cohesion with a venerable heritage. In particular, social disorganization theories have long regarded inter-group relations as a measure of the capacity of a community to sustain itself in the long-term (e.g. Kornhauser 1978; Shaw & McKay 1969). Where tensions between social groups become embedded within the structure of a community, people arguably become progressively less able to realise their common aims and values, such as long-term health, family stability and social order (Kornhauser 1978). In fact, such tensions can become so deeply entrenched within a society that they create a vicious cycle of negative feedback effects (Markowitz, Bellair, Liska & Liu 2001; Steenbeck & Hipp 2011). The experience of economic strain is potentially an important contributor to those negative effects.

## **Economic strain and social cohesion**

The economic strain experienced by individuals is a measure of how difficult those people find it to live on their current income (Whelan et al., 2001). As such, people's subjective assessment of their economic situation may not correspond very well with their actual income or standard of living. For example, the "squeezed middle" may feel, rightly or wrongly, that they are under greater economic pressure than their working class neighbours (Scott & Pressman 2011). However accurate an individual's perception of economic strain, that viewpoint will likely influence their cognitive functioning, and potentially shape their attitudes towards the society in which they live. Reference group theory highlights that the propensity of individuals to compare their own situation with that of others means that the experience of economic strain can generate psychological effects akin to those associated with actual poverty and hardship (Runcimann 1966). Aside from potential reductions in cognitive capacity (Mani et al, 2013), economically stressed people may feel that their difficulties restrict their opportunity to attain the kind of place within the social structure to which they aspire. Disenchantment with their own lot can then lead individuals to experience "sour grapes" when they observe others doing better than they are (Elster 1983; Hedstrom 2005). In such circumstances, it is quite conceivable that the anxiety caused by economic strain will give rise to a sense of social fragmentation, that everyone within society is not "all in it together", and that some individuals and groups are gaining at the expense of others.

Reference group theory suggests that the negative comparisons individuals make between their own fate and that of others often gives rise to out-group hostility, which problematizes the development of the shared goals and values that underpin harmonious social living (Merton 1957). Given the connection between the economic opportunity structure and people's well-being in developed societies (Hagerty 1998), a disjuncture between economic aspirations and actual outcomes may be especially likely to prompt

feelings of dissatisfaction and resentment, particularly towards outgroups. Moreover, although the experience of economic strain and grinding poverty are not equivalent, there are several other ways in which the effects of strain might mimic those of actual hardship. In addition to potentially experiencing feelings of alienation and hostility, individuals suffering economic strain may lack the capacity and willingness to contribute to the resolution of collective action problems. For example, they may not feel able or willing to invest the time or money required to participate in the kinds of civil associations that build connections between diverse social groups (Smith 1994). They may also find it more difficult to develop the varied social networks and supportive social relationships required to overcome out-group hostility and build cohesive societies (Putnam 2007). Thus, on the basis of the disjoint between aspirations and reality, and the potential constraint on social participation posed by the experience of economic hardship, we expect that:

H1: Economic strain will be negatively related to perceptions of social cohesion

### **Institutional trust and social cohesion**

Within European societies, the economy is not the only social structure that shapes individuals' attitudes, beliefs and actions (Oskamp & Schultz 2004). The political institutions present within any given society too have a major impact on individuals' experience of their place within that society when compared to their fellow citizens. According to civic-republican theories, where individuals trust their political institutions it is highly likely that they have come to share some basic common political values and moral principles that undergird their attitudes towards their fellow citizens (Putnam, 1993). Or put differently, a high level of institutional trust is an excellent indicator of the extent to which the citizens within any given country embrace a common civic culture (Almond & Verba 1963; Letki

2006). At the same time, in the presence of such a civic culture, people generally become more able to articulate, support and enact common goals, and place greater trust in public authorities' ability to be responsive to their needs and demands (Almond & Verba 1963). This greater engagement with and involvement in the political opportunity structure is therefore likely to be associated with several additional positive externalities, including higher levels of resilience to the perceived social threats posed by immigration and ethnic diversity (Andrews 2009; Putnam 2007).

For many social scientists, institutional trust and the strength of the civic culture are so closely related to the cohesiveness of a society as to be virtually inseparable. Indeed, a number of previous studies have drawn upon institutional trust as one amongst a battery of social cohesion indicators (e.g. Dickes & Velentova 2012; Green, Janmaat & Cheng 2011; Vergolini 2011). However, in the burgeoning empirical literature on this topic, little attention is given to the interrelationships between the different dimensions of social cohesion, so in seeking to explore the benefits of institutional trust for tensions between social groups we aim to break new conceptual and empirical ground. For instance, in the related literature on social capital, several studies examine the ways in which its different dimensions are connected (e.g. participation in membership organizations and political participation (e.g. Van der Meer and Van Ingen, 2009, Wollebæk and Strømsnes, 2008)). All the same, trust in political institutions is not only an individual-level indicator of broader social attitudes, but is also a reflection of individuals' beliefs about the responsiveness of institutions to their preferences and priorities (Scharpf 1999). Thus, as noted above, we anticipate that institutional trust will exhibit a distinctive and important relationship with perceptions of social conflict within European societies that is not simply attributable to its being a product of the cohesiveness of a given society.

If individuals place a great deal of trust in their political institutions, it is likely that they will have a higher level of trust in their fellow citizens (see Brehm & Rahn 1997). Faith

in political institutions induces trustworthy behaviour (Irwin 2009), serving as the repository of the ‘meta-trust’ throughout society that undergirds citizens’ confidence that social and political conflicts can be successfully resolved. Where institutions are trusted, extending trust to others becomes easier because there is a guarantee that violators of this trust will be penalized. Once individuals trust institutions such as courts, police, or other institutions tasked with settling disputes and regulating society, they can afford to take the risk to trust others, safe in the knowledge that people will be penalised for behaving in an untrustworthy manner. When there is high institutional trust, citizens believe that they can rely on institutions to solve problems. In particular, they are likely to believe institutions will be capable of resolving disagreements between different groups that would otherwise create important social tensions. In addition, high institutional trust makes it easier for government to develop and deliver policies because it lowers the transaction costs associated with “selling” policies to citizens and securing their compliance (Cook, Hardin & Levi 2005; Fukuyama 1995).

As a result of the close connection between trust in government and positive attitudes towards fellow citizens from diverse social groupings identified in several previous studies, we therefore anticipate that:

H2: Institutional trust will be positively related to perceptions of social cohesion

### **Economic strain, institutional trust and social cohesion**

In addition to having a direct positive connection with perceptions of social cohesion, institutional trust is also likely to influence the impact that other salient variables might have on people’s perceptions of tensions between different social groups. Where individuals generally trust political institutions to govern in ways that advance their own interests in a fair and just manner, they may feel less inclined to react negatively when they compare

themselves unfavourably to other reference groups (Sztompka 1999). Put simply, institutional trust may outweigh the propensity for a person's failure to achieve the standard of living to which they aspire to result in their feeling alienated from society or feeling hostile towards other social groups. Individuals experiencing severe economic strain who trust the political institutions in their country may therefore feel that the political opportunity structure is one in which their life aspirations and chances are still valued.

In essence then, trustworthy political institutions inspire a positive sense of common citizenship that can transcend the experience of economic inequality (Marshall 1992). Thus, the experience of common purpose and political equality might potentially buffer Europeans from some of the most corrosive effects of economic strain. Whether by imparting a sense of common citizenship that assures individuals that their interests are treated equally or by prompting people to be more proactive in contributing to the public good (Cook, Hardin & Levi 2005; Hardin 1991; Irwin 2009), institutional trust may hold the key to overcoming barriers to positive social relations. Hence, our final hypothesis is that:

H3: Institutional trust will moderate the negative relationship between economic strain and perceptions of social cohesion

## **Data and method**

For our analysis we use data from the Eurobarometer project, a comparative large-N survey conducted twice a year since 1973. On behalf of the European Commission, Eurobarometers are coordinated by a consortium formed by Taylor Nelson Sofres and EOS Gallup Europe. Respondents are selected following a multi-stage, random probability sampling procedure from the total population aged fifteen and above. Interviews are then conducted face to face at the respondent's home. To ensure cross-country comparability of survey items, questionnaires

are carefully designed, translated and back-checked (see GESIS, 2013). For our study we utilize Eurobarometer 74.1 on poverty and social exclusion in the EU27 member countries (European Commission 2010). The survey work was fielded between August and September 2010. Its sample population is representative at the national level with a total of 26,635 respondents – approximately 1,000 respondents per country.<sup>1</sup> Data has been weighted in proportion to its share in the total population of the 27 member countries of the EU. These adjustments are based on EUROSTAT population figures and include post-stratification sample weighting factors.

### *Dependent variable*

We measure social cohesion as an attitudinal phenomenon reflecting individuals' perceptions of the quality of the relationships between different social groups (see Moody & White 2003). Contrary to much prior research on social cohesion which uses neighborhood- or regional-level indicators, we concentrate on social cohesion as the (perception of) micro-level interactions between individuals and groups, and do not approach it as a macro-level attribute. We use subjective indicators for two reasons. One is that social cohesion is a fairly broad concept that would require a wide range of indicators to capture, some of which may even be incommensurable. Secondly, citizens do not necessarily perceive low social cohesion, even when objective indicators suggest this is the case (see Han, Janmaat, Hoskins and Green, 2012). Individuals' behaviors and actions depend as much on how a social situation is perceived, as the picture presented in official statistics. Thus, we operationalize social cohesion as a low degree of perceived social tensions among various socio-economic groups, including the poor and the rich (wealth), managers and workers (social class), old and young people (age), and different racial and ethnic groups (ethnicity). Within the Eurobarometer survey, respondents were asked to indicate whether they perceive tensions between those social groups. More precisely they were asked: *"In all countries there sometimes exists*

*tension between social groups. In your opinion, how much tension is there between each of the following groups in (YOUR COUNTRY)?”*. Answer possibilities ranged between ‘A lot of tensions’ (1), ‘Some tensions’ (2), and ‘No tensions’ (3). We assume, the lower the degree of tensions between indicated groups are, the higher the perceived social cohesiveness of a given country.

There are substantial differences between European countries in the degree to which tensions are perceived between social groups (see table 1). Perceived tensions are generally high in Hungary, the Czech Republic, France, Slovenia, and to some extent in Greece and Germany. Perceptions of social cohesion are quite positive in Denmark, Finland, Bulgaria, Cyprus and Portugal. Within certain countries, there are some remarkable differences between the four types of tensions. Danish and Dutch respondents, for instance, generally perceive low tensions between groups, and especially between rich and poor, but they do perceive high ethnic tensions. Some other countries such as Lithuania and Romania perceive high socio-economic tensions, yet do not see a lot of ethnic tensions. In Latvia and Romania, perceived tensions between rich and poor tend to be much higher than tensions between other groups. Finally, in the UK, Estonia and Poland, overall tensions are comparable, and in these three countries, tensions between young and old are comparatively less important.

[Table 1 about here]

Because social cohesion is generally regarded as a latent construct, we constructed a measure of all four foci of tensions between social groups using principal components analysis, as displayed in table 2. Due to the ordinal nature of our four social cohesion items, we used a polychoric correlation matrix to obtain the dependent variable (see Holgado-Tello et al. 2010). All four items loaded on a single factor and further tests on their internal reliability revealed an underlying latent concept of social cohesion (as exemplified by a

Cronbach's alpha of 0.70). Our extracted factor revealed an Eigenvalue of 2.39, explaining 60% of the total variance. Moreover, we tested whether our revealed factor structure is supported within each country by means of a confirmatory factor analysis, finding acceptable fit values.<sup>2</sup>

[Table 2 about here]

### *Independent variables*

Since there are substantial cross-country differences in levels of income and the cost of living across the EU, it is necessary to draw upon an indicator that is able to capture the relative *economic strain* experienced by individuals in Europe. Reference group theory indicates that people regularly assess their economic situation by comparing their standing with that of relevant others (Runciman 1966). It is possible that such comparisons may occur across EU member countries as well as within them, and may be used to generate comparatively accurate assessments of the relative economic strain experienced by individuals. Respondents to Eurobarometer 74.1 were asked to indicate on a six point Likert scale how comfortable they felt against the background of their total household income. Specifically, they were asked: “*A household may have different sources of income and more than one household member may contribute to it. Thinking of your household's total monthly income, is your household able to make ends meet...?*”. Answer possibilities ranged from ‘Very easy’ to ‘With great difficulty’. Measures of this type have been used in several prior studies of economic strain (e.g. Blekesaune 2013; Vergolini 2011; Whelan, Layte, Maitre & Nolan 2001; 2005).

Individuals' confidence in their political authorities to observe the rules of the game and serve the common interest varies strongly within and across European member countries (Hakhverdian & Mayne 2012; Van de Walle et al. 2008). In particular, individuals have varying beliefs about the extent to which the political institutions within their country are

responsive to their preferences. We aim to capture these subjective judgments about institutional responsiveness by looking at the degree to which European citizens trust the major political institutions within their countries. More specifically, to gauge *institutional trust* respondents to the Eurobarometer 74.1 were asked to indicate on a ten point Likert scale “Please tell me how much you personally trust each of the following institutions using a scale from 1 to 10 where [1] means ‘you do not trust the institution at all’ and [10] means ‘you trust it completely’”. At which point, they were prompted regarding the following political institutions: 1) the national parliament, and 2) the national government. A composite indicator of institutional trust was constructed by taking the average score of these two items (Cronbach’s alpha = 0.93).

#### *Control variables*

We introduce a range of potential control variables that may influence the relationships we study, beginning with wealth, employment status, age, and country of origin. Respondents’ wealth status is measured by asking them to indicate on a 10 point Likert scale, ranging from very poor to very wealthy, where they would situate the economic situation of their household. Including this measure of income in our model enables us to parse out the reference group effects of economic strain from those simply associated with lower household resources. As regards employment status, respondents were asked to indicate their current occupation. We grouped them into seven categories: managers and professionals, clerical workers, self-employed, working class, unemployed and not in the labor force. In terms of age we have grouped respondents into four age groups, namely 15-24 years, 25-39 years, 40-54 years, and 55 years and older. Whenever respondents had a different nationality from the country where he/she currently lived in we coded them as immigrants.

Additional controls include respondents’ gender and the type of community respondents are living in (rural town, small or medium town, large town). Controlling for

educational status, we grouped respondents according to their age when they left fulltime education. Those who have indicated that they had no formal education or exited the educational system at the age of 15 or younger were regarded as having completed only basic or no formal education whatsoever. Those between 16 and 19 years were categorized as having finished secondary and those older than 20 as finished higher education. Respondents who were still studying were assigned to one of the three categories in correspondence to their age.

[Table 3 about here]

## **Results**

We first present the results of the multivariate regression models using perceptions of social cohesion as a latent construct. Subsequently, separate models are run for each of the aspects of social cohesion. As a first step, we estimate two Ordinary Least Squares (OLS) regression models as depicted in table 4. In the first model, we include all our control variables, in the second we then add economic strain. In a third model we include institutional trust and the final model (model 4) also incorporates an interaction term between strain and trust.<sup>3</sup> The base terms were mean centred before we entered them into our models, to further reduce the potential for multicollinearity to bias the estimates (Aiken & West 1991). We estimate our models using country unit fixed-effects to account for potential clustering effects and unobserved heterogeneity across countries.

[Table 4 about here]

The results for the baseline model suggest that wealthy individuals, immigrants, women and the young and the elderly perceive fewer social tensions, whilst individuals of lower socio-economic status, the unemployed and others not in the labour force perceive there to be more social tensions. The size of the community in which respondents live and educational attainment are all unrelated to perceptions of cohesion.<sup>4</sup> Of particular interest here are the positive relationships between being a woman or being an immigrant and perceptions of social cohesion. It is generally assumed that men feel more integrated within European societies than women, especially through their participation in the labour market. Nevertheless, prior cross-European studies provide mixed evidence on the relationship between gender and both social and institutional trust (e.g. Green, Janmaat and Cheng, 2011; van Oorschot and Arts, 2005), highlighting that much more research on this topic is necessary to underpin any firm conclusions about the relationship between gender and perceptions of social tension.

In a similar vein, although individuals belonging to a national outgroup might be thought likely *prima facie* to have a less positive outlook on group relations within a given country, it is possible that they actually have a much more optimistic view of their host country. Theories of segmented assimilation suggest that first-generation immigrants may perceive fewer social tensions because they are less familiar with the inter-group dynamics of a given country than second-generation immigrants or native-born residents. They may also have lower expectations about their place within the system of social stratification (Zhou, 1997). Although little research has assessed the relationship between immigrant status and perceptions of group tensions, some prior work has examined the link between that status and generalized and institutional trust. One study of cross-European attitudes using the 2002 European Social Survey (ESS) finds that immigrants exhibit lower levels of interpersonal trust than native-born individuals (Hooghe, Reeskens, Stolle and Trappers, 2009), but others exploring the relationship with institutional trust find, as we do, the opposite relationship (e.g.

Röder and Mühlau, 2012, which uses ESS data from 2002, 2004 and 2006). Longitudinal studies exploring the precise dynamics of immigration and social cohesion in European societies would undoubtedly be of great theoretical and practical value.

In terms of the main independent variables of interest, we can observe that the higher a respondent's economic strain, the lower his/her perceptions of social cohesion. This finding seems to confirm the insights of reference group theory regarding the likelihood that individuals experiencing economic difficulty may feel greater resentment towards those in other social groups coupled with reduced ability or willingness to contribute to collective action to resolve social tensions. Moreover, the substantive effect of economic strain is large. In figure 1, we first graph the predicted values for the effect of economic strain on perceptions of social cohesion as estimated in our first regression model shown in table 4. We observe that a standard deviation (SD) increase of one in economic strain results in a .08 decrease in the social cohesion scale. The graph depicting this effect illustrates that the confidence intervals do not overlap at any point across the range of predicted probabilities. Thus, we can conclude that economic strain has a substantive *and* statistically significant effect at all points.

For institutional trust, as expected, the effect direction points in the opposite direction. More trust in institutions is associated with a higher level of perceived social cohesion. Hence, our findings offer support for the civic-republican argument that citizens who regard themselves as members of a political community in which they are valued tend to view relations between the different groups in that community more positively. The effect size for trust is quite large. We also observe that a one SD increase in institutional trust is associated with a 0.2 increase in the measure of social cohesion. Moreover, in the second graph depicted in figure 1 we find very little overlapping of the 95% confidence interval of the predicted values of social cohesion for different levels of institutional trust. Respondents that experience high levels of trust are reporting significantly higher levels of perceived social cohesion.

[Figure 1 about here]

We now turn our attention to evaluating the potential interaction between economic strain and trust in institutions. We assume that the negative effect of strain on perceptions of social cohesion will decrease as trust in institutions increases. Thus we expect trust in institutions to have a moderating effect on the economic strain-social cohesion relationship. Adding the interacted term to our model increases the explanatory power, indicating that the propensity of individuals experiencing economic strain to trust their political institutions may play an important role in explaining social tensions. From table 4 we can observe that the sign of the coefficient of the interacted term is positive as expected and is statistically significant. This offers support for our hypothesis regarding the interaction between economic strain and institutional trust. However, to disentangle the substantive impact of trust on the strain-cohesion relationship, this interactive effect requires further investigation. In this vein we follow Brambor, Clark & Golder's (2006) suggestion for calculating the marginal effects of the independent variable (economic strain) on the dependent variable (perceived social cohesion), contingent on the potential moderator (trust in institutions), as visualized in figure 2.

[Figure 2 about here]

Looking at figure 2, an interesting picture emerges. Higher levels of institutional trust do seem to lower the negative marginal effects of Europeans' economic strain on social cohesion. Or in other words, as trust in institutions increases it mitigates the negative relationship between economic strain and the perceived prevalence of social tensions within European societies. From the figure, we find that the observed effect is substantive, as the 95% confidence intervals do not overlap largely. Furthermore, we can see that the upper 95%

confidence interval hits the zero line after the trust in institutions scale reaches ‘6’, about one standard deviation above the mean level of trust. This indicates that high levels of trust have the potential to wipe out the negative marginal effect of strain on perceived social cohesion; though it is important to note that very high levels of institutional trust do not turn the negative effect of economic strain positive. The graph therefore highlights that Europeans experiencing economic difficulties who also exhibit a high level of trust are less likely to negatively perceive social cohesion within their country. Practically speaking, this suggests that trustworthy political institutions can support social cohesion, even when the economic strain experienced by citizens is high. To further elaborate on our main findings shown in Table 4 and figures 1 and 2, we model the tensions between each of the different social groups incorporated within our social cohesion construct.

#### *Modelling the relationships for different sources of social tension*

Generally speaking, social cohesion is conceptualised as a kind of latent construct that cannot be directly observed, but rather is composed of separate though inter-related aspects that are susceptible to observation. Nevertheless, although taken together those separate aspects of cohesion may constitute a theoretically coherent representation of an underlying concept, each aspect may itself have an independent life of its own. To provide additional insights on what drives public perceptions of social cohesion, we therefore estimate models for each aspect of social cohesion, namely the presence or absence of tensions in terms of wealth, social class, age and ethnicity. In re-estimating our models for these different aspects of social cohesion we anticipate that the effects we observe will be broadly similar to those for the composite measures. However, we anticipate that the moderating effect of institutional trust on the strain-cohesion relationship may matter most for the tensions between the wealthy and the poor, since *prima facie* those tensions are most likely to be impacted by economic strain. By contrast, we anticipate that tensions between management and workers may be the most

impervious to the moderating effect of institutional trust due to the persistence and resilience of class divisions within many European societies (Breen, 2004).

For our extended analysis, the dependent variables are ordinal, ranging from ‘1’, over ‘2’, to ‘3’. A commonly used estimation strategy would therefore be to perform an ordinal logistic regression (OLR). However, one major prerequisite to acquire unbiased estimates in an OLR setting is the proportional odds assumption, which assumes identical slope coefficients for each cut point of single logit functions. Unfortunately, all specifications of our empirical models violated this assumption. To address this issue we employ a Stereotype Logistic Regression (SLR) (Andersen 1984), which accounts for the ordinal nature of our dependent variables and relaxes the proportional odds assumption.<sup>5</sup> Prior to estimating our SLR model, we tested the distinguishability of our dependent variables’ categories, finding that all categories of each of our four outcome variables are statistically distinguishable from each other.<sup>6</sup> In predicting, as in our case, three ordered outcome categories of different aspects of perceived social cohesion, we assume only one linear function to describe the relationship. Hence we utilise an onedimensional SLR model.

[Table 5 about here]

Table 5 displays results from the estimations using perceived tensions associated with wealth, social class, age and ethnicity as dependent variables. The differences in the coefficients across logit equations are denoted as  $\Phi$  (Phi).  $\theta$  (Theta) stands for the difference in intercepts of the different equations. We report standard errors in parenthesis, and coefficients which can be interpreted like conventional logit coefficients. We can observe that self-reported economic strain has a negative and statistically significant effect on perceived social cohesions for all four models. As we assumed, the opposite holds true for trust in institutions. As regards the interaction between strain and trust, however, we can observe that

the interaction term does not turn significant for social class and age. For the remaining models (wealth and ethnicity), the coefficient for the interaction between strain and trust is statistically significant, and is in the expected direction. Critically, graphing the interaction effects shows that the two statistically significant interaction terms exhibit similar moderating effects to those obtained using the social cohesion index in our original OLS estimations (figures available on request). The non-significant findings for social class and age is suggestive of the possibility that Europeans experiencing economic hardship feel little confidence that their political institutions are able to address problematic relationships between the working and managerial classes, so as between different age groups. Further quantitative and qualitative research exploring this possibility in more detail would cast valuable light on this important issue.

## **Discussion and conclusions**

To explore the potential for the quality of political institutions to mitigate the impact of economic difficulties on the cohesiveness of European societies, this paper has presented a statistical analysis of the separate and interactive effects of economic strain and institutional trust on Europeans' perceptions of tensions between different social groups within their countries. The statistical results suggest that perceptions of social cohesion were negatively associated with economic strain, even when controlling for other relevant personal characteristics and circumstances. By contrast, individuals who trust the political institutions within their country have a much more positive view of the cohesiveness of society. Although individuals having difficulty making ends meet had a negative perception of social cohesion, if those people simultaneously had greater trust in their political institutions they appeared to perceive the tensions between different social groups within their country to be much less serious. These findings have important theoretical and practical implications.

Our study builds on existing theoretical and empirical work on social cohesion, providing a direct test of the connection between economic strain, institutional trust and inter-group tensions. Although prior studies have explored variations in the Europeans' perceptions of social tensions within their own country, that research has tended to seek explanations based on clusters of national welfare regimes (e.g. Green, Janmaat and Cheng, 2011), rather than individuals' own attitudes and beliefs. Moreover, until now, the combined effects of strain and trust on social tensions have not been investigated within the same study. What emerges from our analysis of the Eurobarometer 74.1 data is a pattern of societal cohesiveness within European countries, which reflects the main theoretical perspectives from which we draw inspiration. That economic hardship increases the prospects of social tension is a key tenet of both social disorganization theory and reference group theory. That trustworthy political institutions bring with them positive social attitudes is at the heart of civic-republican political theories. That such institutions can also mitigate some of the damaging effects of economic sources of social tension is a valuable extension and synthesis of these different perspectives.

The results of our analysis also provide food for thought for policy-makers about the kinds of substantive interventions, which might sustain perceptions of social cohesion in the wake of the financial crisis. Numerous scholars have drawn attention to the benefits of trustworthy political institutions for social cohesion, and it would seem that efforts to uphold institutional trust may be especially beneficial when citizens confront economic hardship. Indeed, building confidence in public institutions and encouraging processes of social innovation that elicit the positive contributions of citizens to public policy development is now a key goal for EU policy-makers seeking to uncover new sources of social cohesion (Hubert, 2010). These benefits are illustrated here by theorizing and empirically exploring the role that institutional trust may play in making European societies more resilient to the problems caused by economic strain. At the same time, it does seem as if that resilience

matters more for the relations between some social groups than others. In particular, labour relations and inter-generational relations appear to be less tractable in this regard than either ethnic or wealth-based relations. This is perhaps symptomatic of the current crises facing Europe, with the perceived disparity between the lot of the managerial and working classes and the disjoint between a young population desperately seeking work and the “baby boomers” enjoying a comfortable retirement posing profound challenges to the future viability of the European social model.

The findings presented here nonetheless raise several important questions that are worthy of further analysis. Firstly, the statistical results we present are drawn from a cross-sectional snapshot and so should be treated as evidence of statistical association rather than causation. It is therefore important to identify whether the relationships identified here are replicated when using research designs that are able to disentangle cause and effect more effectively than our data allow. Longitudinal quantitative and qualitative research which tracks how changes in economic strain and institutional trust influence (and are influenced by) the tensions between different social groups through time would also reveal more about the complex causal mechanisms underlying individuals’ experience of the economic and political opportunity structures and their attitudes towards other social groups. At the same time, it would be useful to supplement longitudinal analysis of survey data with research utilizing objective “archival” country-level measures of cohesion and economic performance.<sup>7</sup> A research agenda that sought to address each of these issues would thus cast considerable light on the nature of social cohesion within and across EU member states.

The results of our analysis indicate that institutional trust has an especially large statistically significant effect on perceptions of social cohesion in Europe. They also highlight that such trust can moderate negative externalities for social cohesion associated with economic hardship. Ultimately, this implies that more should be done to understand and

support the work that governments can undertake to build confidence in the policies that they develop and implement.

## **Acknowledgements**

The research leading to these results was supported under the European Union's Seventh Framework Programme under grant agreement No. 266887 (Project COCOPS).

## **Notes**

1. With the exception of Cyprus (504), Luxembourg (476) and Malta (500), and also Germany (1,577) and the United Kingdom (1,309).
2. Model fit was assessed using: Chi-square, root mean square error of approximation, comparative fit index, and Tucker-Lewis index (see Kline, 2011) – available upon request.
3. The findings from the empirical analysis are not distorted by multicollinearity which can be exemplified by a Variance Inflation Factor of 2.1 with no single variable exceeding 7.0 (Belsley, Kuh & Welsch 1980).
4. Our findings are robust to different model specifications. Since Scandinavian countries are noted for having high levels of institutional trust (e.g. Van Oorschot and Arts, 2005), we were keen to eliminate the potential for the results to simply be biased by this regional effect and so re-ran our estimations excluding responses from Denmark, Finland and Sweden. In addition, we estimated random slope multilevel models with and without respondents from countries with particularly high Cook's D values at the country level (Spain, Bulgaria, Sweden, Slovenia and Romania). In each case, the results for our substantive variables (i.e. economic strain, institutional trust and strain x trust) remain essentially the same.

5. An alternative estimation strategy would be to use a generalized OLR. However, this method produced negative predicted probabilities, making our results implausible (see Fullerton and Wallace, 2006). Multinomial logistic regression does not account for the ordered nature of our dependent variables, resulting in a potential loss of efficiency. Furthermore, we found a statistically significant better fit for our SLR models, than conventional multinomial methods.
6. More precisely, we constrained two out of each of the three outcome categories to be equal, and then performed likelihood ratio tests by comparing the model fit between these models and the non-constrained ones for all possible combinations (available upon request).
7. Inclusion of objective indicators (e.g. relative poverty rates, percentage of pensioners in the population, percentage of foreign-born population, percentage of workers involved in strikes (*cohesion*); unemployment rate and GDP per capita (*economic performance*)) within the cross-sectional statistical models we present here made little difference to the results that we observe. Nevertheless, it is possible that the long-term trajectory of these variables would tell one much about the cohesiveness of European societies.

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Table 1. Social cohesion across European countries

% indicating 'a lot of tension'	Poor and rich	Management and workers	Elderly and young	Racial/ethnic tensions
Belgium	25.6	26.5	14.1	48.5
Denmark	6.0	2.9	3.7	48.0
Germany	40.8	40.4	18.1	44.9
Greece	41.7	45.7	15.7	44.7
Spain	28.2	35.5	15.8	39.8
Finland	16.8	13.8	5.7	40.8
France	46.4	45.3	16.7	55.3
Ireland	22.4	21.1	5.9	30.6
Italy	27.5	31.1	16.7	45.8
Luxembourg	27.5	31.7	14.2	31.1
Netherlands	15.8	18.8	11.1	55.1
Austria	20.1	23.3	12.5	37.7
Portugal	15.9	20.6	5.7	18.4
Sweden	16.0	12.3	7.5	40.7
UK	25.9	20.0	18.4	44.8
Cyprus	13.3	13.5	7.5	30.1
Czech Republic	51.2	38.8	22.5	60.3
Estonia	32.7	26.9	17.6	22.2
Hungary	74.0	58.4	26.3	64.8
Latvia	41.0	22.1	11.3	15.9
Lithuania	51.5	35.9	16.4	14.3
Malta	27.7	28.0	15.7	54.1
Poland	36.7	32.9	20.3	23.3
Slovakia	40.6	34.8	13.9	40.1
Slovenia	41.2	55.3	23.4	30.6
Bulgaria	22.1	14.5	10.7	15.7
Romania	39.7	43.3	21.0	22.6

Table 2. Dependent variables

	Mean	SD	Min, Max	N	Factor loading
Social cohesion factor score	3.76e-09	1	-1.882, 2.367	22,748	
Poor and rich	1.830	0.667	1, 3	23,923	0.826
Management and workers	1.817	0.619	1, 3	23,641	0.824
Elderly and young people	2.162	0.652	1, 3	24,043	0.773
Different racial/ ethnic groups	1.736	0.657	1, 3	23,743	0.660

Table 3. Independent variables (N=22,748)

	<b>Mean</b>	<b>SD</b>	<b>Min, Max</b>
Economic strain	3.285	1.293	1, 6
Institutional trust	4.117	2.329	1, 10
Wealth status	5.453	1.614	1, 10
<b><i>Employment category</i></b>			
Managers & Professionals	0.098	0.298	0, 1
Clerical staff	0.184	0.387	0, 1
Self-employed	0.070	0.255	0, 1
Working class	0.134	0.341	0, 1
Unemployed	0.085	0.279	0, 1
Not in labor force	0.429	0.495	0, 1
<b><i>Age</i></b>			
15-24 years	0.119	0.324	0, 1
25-39 years	0.242	0.428	0, 1
40-54 years	0.266	0.442	0, 1
55+ years	0.374	0.484	0, 1
Immigrant	0.023	0.151	0, 1
Female	0.462	0.499	0, 1
<b><i>Type of community</i></b>			
Rural town	0.357	0.479	0, 1
Small or medium town	0.358	0.480	0, 1
Large town	0.285	0.451	0, 1
<b><i>Education</i></b>			
Basic	0.193	0.395	0, 1
Secondary	0.473	0.500	0, 1
Higher	0.334	0.472	0, 1

Table 4. Economic strain, institutional trust and social cohesion (OLS)

	<b>Model 1 Baseline</b>	<b>Model 2 + Strain</b>	<b>Model 3 + Trust</b>	<b>Model 4 + Interaction</b>
Economic strain		-0.072** (0.010)	-0.054** (0.010)	-0.051** (0.010)
Institutional trust			0.077** (0.005)	0.078** (0.005)
Strain X trust				0.011** (0.004)
Wealth status	0.0512** (0.007)	0.023** (0.008)	0.009 (0.008)	0.008 (0.008)
Immigrant (Ref. non-immigrant)	0.205** (0.079)	0.217** (0.078)	0.150* (0.076)	0.146+ (0.076)
<i>Employment category (Ref. managers &amp; professionals)</i>				
Clerical workers	-0.105** (0.036)	-0.098** (0.036)	-0.085* (0.036)	-0.091* (0.036)
Self-employed	-0.093* (0.046)	-0.090+ (0.046)	-0.078+ (0.046)	-0.081+ (0.046)
Working class	-0.107* (0.042)	-0.091* (0.042)	-0.059 (0.041)	-0.065 (0.041)
Unemployed	-0.218** (0.048)	-0.181** (0.049)	-0.150** (0.048)	-0.150** (0.048)
Not in Labour force	-0.093* (0.038)	-0.083* (0.038)	-0.076* (0.037)	-0.081* (0.037)
Gender (Ref. Male)	0.059** (0.020)	0.056** (0.020)	0.057** (0.020)	0.058** (0.020)
<i>Age (Ref. 15-24 years)</i>				
25-39 years	0.063+ (0.035)	0.071* (0.035)	0.076* (0.035)	0.078* (0.035)
40-54 years	0.031 (0.035)	0.037 (0.035)	0.038 (0.034)	0.040 (0.034)
55+ years	0.151** (0.033)	0.135** (0.033)	0.128** (0.032)	0.131** (0.032)
<i>Type of community (Ref. rural town)</i>				
Small or medium town	0.001 (0.024)	0.003 (0.023)	0.007 (0.023)	0.008 (0.0230)
Large town	-0.012 (0.025)	-0.008 (0.025)	-0.002 (0.025)	-0.000 (0.025)
<i>Education (Ref. higher)</i>				
Basic	-0.024 (0.033)	-0.007 (0.033)	0.017 (0.032)	0.016 (0.032)
Secondary	-0.024 (0.023)	-0.011 (0.023)	0.008 (0.023)	0.009 (0.023)
Intercept	-0.332** (0.075)	-0.191* (0.078)	-0.138+ (0.077)	-0.122 (0.077)
R <sup>2</sup>	0.080	0.085	0.110	0.111
Adj. R <sup>2</sup>	0.078	0.083	0.108	0.109
F-statistic	69.87**	70.04**	76.75**	75.16**
<i>N</i>	22,748			

Note: \*\* p<0.01, \* p<0.05, + p<0.1. Robust standard errors in parentheses. Country fixed effects not shown.

Table 5. Strain, trust and the different aspects of social cohesion (SLR)

	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>	<b>Model 4</b>
	<b>Wealth</b>	<b>Social class</b>	<b>Age</b>	<b>Ethnicity</b>
Economic strain	-0.165** (0.035)	-0.122** (0.034)	-0.060* (0.030)	-0.136** (0.036)
Institutional trust	0.195** (0.016)	0.226** (0.018)	0.089** (0.020)	0.202** (0.017)
Strain X trust	0.034** (0.012)	0.015 (0.012)	0.018+ (0.010)	0.030** (0.012)
Wealth status	0.022 (0.027)	0.045+ (0.026)	0.046+ (0.024)	-0.070* (0.028)
Immigrant (Ref. non-immigrant)	0.277 (0.239)	0.394+ (0.226)	0.143 (0.199)	0.607** (0.229)
<i>Employment category (Ref. managers &amp; professionals)</i>				
Clerical workers	-0.314* (0.127)	-0.125 (0.126)	-0.257* (0.115)	-0.029 (0.133)
Self-employed	-0.294+ (0.155)	-0.040 (0.155)	-0.197 (0.144)	-0.049 (0.162)
Working class	-0.180 (0.140)	-0.084 (0.140)	-0.159 (0.138)	-0.162 (0.149)
Unemployed	-0.523** (0.159)	-0.348* (0.159)	-0.309+ (0.161)	0.049 (0.170)
Not in Labour force	-0.283* (0.127)	-0.109 (0.128)	-0.252* (0.121)	-0.148 (0.134)
Gender (Ref. Male)	0.172** (0.064)	0.062 (0.064)	0.124* (0.060)	0.168* (0.067)
<i>Age (Ref. 15-24 years)</i>				
25-39 years	0.398** (0.119)	0.166 (0.117)	-0.029 (0.112)	0.007 (0.126)
40-54 years	0.396** (0.117)	-0.053 (0.115)	-0.171 (0.110)	-0.049 (0.126)
55+ years	0.606** (0.113)	0.207+ (0.108)	0.019 (0.104)	0.207+ (0.119)
<i>Type of community (Ref. rural town)</i>				
Small or medium town	0.047 (0.075)	-0.010 (0.074)	-0.007 (0.068)	-0.028 (0.081)
Large town	0.001 (0.080)	0.153+ (0.082)	-0.069 (0.074)	-0.054 (0.087)
<i>Education (Ref. higher)</i>				
Basic	-0.137 (0.101)	0.262* (0.107)	-0.084 (0.099)	0.118 (0.111)
Secondary	-0.118 (0.078)	0.188* (0.078)	0.018 (0.070)	-0.051 (0.082)
$\Phi 1$	1	1	1	1
$\Phi 2$	0.403** (0.035)	0.336** (0.038)	0.714** (0.075)	0.463** (0.024)
$\Phi 3$ (Base)	0	0	0	0
$\theta 1$	0.812** (0.258)	1.285** (0.263)	-0.460* (0.228)	1.785** (0.275)
$\theta 2$	1.425** (0.109)	1.878** (0.098)	0.759** (0.163)	1.893** (0.134)
$\theta 3$ (Base)	0	0	0	0
Wald chi (df)	1,758** (44)	1,631** (44)	786.4** (44)	1,656** (44)
Log Pseudolikelihood	-21,735	-20,287	-22,671	-20,813
<i>N</i>	23,923	23,641	24,043	23,743

Note: \*\* p<0.01, \* p<0.05, + p<0.1. Robust standard errors in parentheses. Coefficients for country fixed

Figure 1. Predicted values of social cohesion for institutional trust and economic strain (95% confidence intervals)

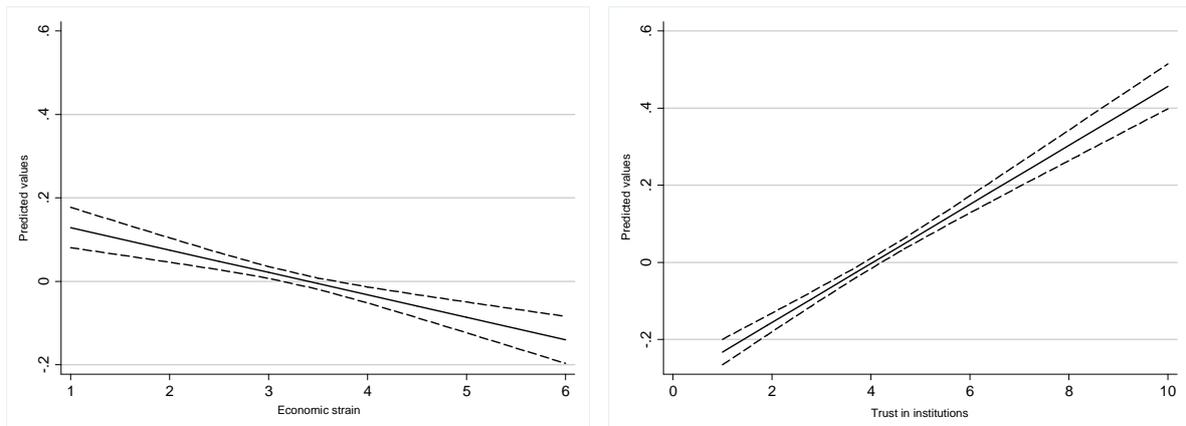


Figure 2. Marginal effects of economic strain on social cohesion contingent on institutional trust (95% confidence intervals)

