Internet Effects in Times of Political Crisis: Online Newsgathering and Attitudes Towards the European Union

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Abstract

This paper evaluates the influence of online news consumption on attitudes towards the European Union in a context of protracted economic crisis. Using data from the 2011 Irish National Election Study, we combine location-specific information on broadband availability with respondent geo-location data, which facilitates causal inference about the effects of online news consumption via instrumental variable (IV) models. We find that Irish citizens who source political information online are more prone to blame the EU for the poor state of the economy than those who do not. We find evidence of preference reinforcement among those with negative predispositions towards the EU, but not among pro-EU citizens. We complement this analysis with a study of voting behaviour in the European Fiscal Compact Referendum, employing a similar methodological approach. The results from this second survey confirm the anti-EU influence of online news consumption among Irish citizens, although we find suggestive evidence of a pro-EU effect among voters who browsed the website of the politically neutral Irish Referendum Commission. Our paper contributes to the literature on public opinion, the EU, and political attitudes in times of crisis.

Key Words: Public Opinion, Economic Crisis, Internet, European Union, Ireland.

1 Introduction

A voluminous literature dating back to Lippmann (1922) argues that mass media play a crucial role in public opinion formation. There is no shortage of empirical research exploring the impact of traditional media on public opinion and political behaviour (for a review of the debate on minimal *versus* massive media effects, see Bennett and Iyengar 2008). However, while the mass adoption of online communication technologies from the mid 1990s onwards has dramatically changed how people access, consume, and exchange information, the Internet's impact on citizens' attitudes towards relevant institutions, political actors and policies is currently empirically under-explored. In this paper, we contribute to filling this gap in the literature by examining how online newsgathering affects citizens' perceptions of the role played by the EU during a period of protracted economic crisis.

The key question that we pose here is whether exposure to the Internet as a source of political information exerts a causal influence on citizens attribution of blame to the EU for the ongoing economic crisis. Because, relative to traditional media, the Internet provides political information that is more voluminous, less strenuously controlled and created by a far more fragmented population, we argue that online newsgathering has the potential to exercise a substantively important influence over public attitudes towards the EU. Moreover, we explore whether medium-specific effects are conditioned by predispositions towards the EU. This approach builds on the repeated finding that the translation of economic information into responsibility attributions is influenced by perceptual biases arising from political predispositions. At the national level, partisanship is the key source of such perceptual biases (Marsh and Tilley 2010; Malhotra and Margalit 2010; Malhotra and Kuo 2008; Tilley and Hobolt 2011), whereas at the EU level Hobolt et al. (2013) demonstrate that predispositions towards the EU condition the manner in which information on policy performance is used to attribute responsibility to the EU. Because the Internet facilitates the polarisation of pre-existing opinions by providing a space for extreme content and maximizing users' control over content selection, we expect citizens' predispositions towards the EU to be reinforced by online newsgathering.

In assessing the effect of the Internet on attitudes towards the EU, we anticipate a negative *medium* effect. This expectation is rooted in the well-documented tendency of individuals to be more likely to retain negative information (Kahneman and Tversky, 1979; Ito et al., 1998). This is particularly true in a time of crisis, when there is no shortage of negative information and demand for it grows higher (Soroka, 2006). Building on these insights, we argue that the reinforcement effect of online newsgathering is asymmetric: a strong impact on negative attitudes towards the EU for Eurosceptics and a weak impact on positive attitudes towards the EU for Europhiles.

In order to test these contentions, we employ public opinion data from an EU member state in the midst of a profound economic crisis: Ireland. After a period of extraordinary economic growth from the mid-1990s to late 2008, most of Ireland's major banks abruptly collapsed. A costly government bailout of these banks coincided with the bursting of Ireland's property bubble - leading to high unemployment, a halt in GDP growth figures

and rapidly escalating government debt (ESRI 2013). The state's inability to finance its debt on the international bond markets led to the European Union/European Central Bank/International Monetary Fund conditional bailout of the Irish exchequer in November, 2010. The EU/ECB/IMF bailout brought a significant European dimension to the Irish crisis.

In our analysis, we integrate data from the 2011 Irish National Election Study (INES 2011) with an original survey on voting behaviour in the 2012 Irish Fiscal Compact Referendum. By doing so, we are able to examine as dependent variables both citizens' attribution of blame to the EU, expressed as attitudinal responses in the INES 2011, and their behavioural reactions to European-level policies aimed at tackling the crisis (i.e. their vote choice in an EU Referendum). We argue that, taken together, these elements provide a robust measurement of citizens' attitudes towards the EU's role in the economic crisis. To make causal inferences about the effect of the Internet on public opinion, we employ an instrumental variable estimation that mimics the dynamics of experimental studies. Specifically, we exploit geographical variation in the availability of broadband in Ireland to instrument online newsgathering.

Our results indicate that exposure to the Internet as a news source fosters a greater proclivity to blame the EU for the current economic crisis and to vote against EU-level policy solutions to the crisis. Among those respondents who report low levels of confidence in the EU, online newsgathering engenders a greater likelihood of blaming the EU for the crisis and voting against the Fiscal Treaty. Among those who report higher levels of confidence in the EU, on the other hand, online newsgathering does not appear to foster a more positive evaluation of the EU's crisis management. Finally, we note that there is suggestive evidence of a 'pro-EU' effect among those citizens who used the Internet exclusively to source politically-neutral information.

The paper proceeds as follows. In the next section, we review the literature on theorizing expectations. In section three, we present our theory and hypotheses. We then introduce our data and outline our methodological approach in section four. In section five, we present our main results by analysing the INES 2011. In section sixth, we provide additional evidence that further validates our findings and expand the analysis by integrating data from the 2012 Fiscal Compact Referendum survey. We conclude with a discussion of the implications of our study for future research.

2 Mediated Information, Attitudes Towards the EU and the Economic Crisis

Despite an initial consensus on the 'minimal effects' thesis (Lazarsfeld et al. 1948; Berelson et al. 1954), more recent research on media effects has produced evidence of empirically identifiable and substantively significant effects of mass media exposure on political opinions and behaviours, once appropriate estimation techniques are implemented (DellaVigna and Kaplan 2007; Enikolopov et al. 2011; Kern and Haimuller 2009 for estimations using instrumental variables; Ladd and Lenz 2009 for panel data; Gerber et al. 2009; Iyengar

and Hahn, 2009; Jerit et al. 2013 for experimental studies and comparison across experimental approaches).

Addressing the consequential effects of media on public attitudes and voting behaviour is especially crucial with regard to the EU because of the lack of direct interaction between citizens and European-level institutions (Dalton and Duval 1986). Therefore, the role of mediated information has been an object of attention for scholars interested in understanding citizens' attitudes towards the EU. Intense media coverage has been linked to increases in citizens' levels of knowledge of the EU (De Vreese and Boomgaarden 2006) and higher turnout has been observed in media environments where the election campaign is featured prominently (Banducci and Semetko 2004). To date, however, little scholarly attention has been paid to the questions of whether and how the Internet weighs into this process.[1]

Our study directly addresses the impact of new media on public opinion towards the EU and, in particular, the apportionment of political blame in a time of economic crisis. Since this crisis is at once complex and unprecedented (Hellwig and Coffey; 2011: 418), the attribution of political responsibility depends crucially on the information citizens access and process. A vital conditioning role in the conversion of information into evaluations is played by political predispositions. Jerit and Barabas (2012: 682) find a "selective pattern of learning" from the news media among partisans, indicating that pre-existing opinions and attitudes play a major role in consuming and absorbing information from the media. Just as partisanship influences how voters attribute credit and blame at the national level, pre-existing attitudes towards the European Union appear to shape blame attribution at the European level (Hobolt et al. 2013).

While pre-existing attitudes orient citizens media consumption and condition media effects, in times of economic crisis we are all confronted with a disproportionate amount of negative information. Previous studies show that negative information tends to have a greater impact than positive information on public opinion. Asymmetric responses to positive and negative information are suggested by the *prospect theory* in economics (Kahneman and Tversky, 1979) as well as by the *cognitive psychology* literature (Ito et al., 1998.). This asymmetry is particular strong in relation to economic news coverage. For instance, Soroka (2006: 381) finds that economic crises are more likely to lead to pessimistic attitudes toward the economy than in routine times.

In sum, the aforementioned strands of literature provide us with three solid insights: (1) attitudes toward the EU are influenced by mediated information; (2) predispositions toward the EU condition information effects in the attribution of political blame; (3) responses to positive and negative mediated information are asymmetric. In the next section, we apply these insights to the case of online newsgathering, explore their interplay, and outline our theoretical expectations.

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[1]An exception is De Wilde et al. (2013), who content-analyse expressions of Euroscepticism in online media across 12 member states in the 2009 European Parliament campaign. However, their analysis does not deal with the consequences of online-based information and communication for public opinion.

3   Theory and Hypotheses

The Internet is a substantially different information medium to newspapers, radio or television. Compared to these traditional media, the web exponentially multiplies citizens' opportunities to gather political information. When reading a newspaper, an individual is confined to what is contained between its first and last page; on the Internet such boundaries simply do not exist. As a consequence, each individual will access different content while browsing for news online, depending on the links that he or she follows and the type of interaction that he or she undertakes with the websites visited. Moreover, the content of web pages that users may come across is often radically different to what can be read in a newspaper, heard on a radio or viewed on TV. While media publishers and regulatory authorities act as gatekeepers to what can be broadcast and printed, the Internet remains a largely unregulated space with extremely low barriers to entry. Therefore, online newsgathering can entail exposure to a tranche of opinions and statements that are unverified and possibly confounding, as well as to large volumes of factual information. Finally, online news is particularly suited to fast consumption in short amounts of time. The scroll-down format of webpages presents users with a voluminous amount of information that can be visualized in few seconds.

Given these characteristics of online newsgathering, assessing what a subject retains from a browsing session is a complex endeavour. Nevertheless, by setting apart those who have embedded the Internet in their news consumption patterns from those who have not, we can estimate the unique effect of the medium on public opinion. Therefore, we begin by exploring whether online newsgathering has an independent effect on evaluations of the EU's role in the crisis. In so doing, we anticipate that if an effect is to be found it will be a negative one. Three considerations motivate this expectation. First, there is the above-mentioned tendency of negative information to be more memorable than positive information. Second, the Internet gives users unprecedented control of content selection, and individuals show a higher propensity to select negative news (Trussels and Soroka, 2014). Third the context of this study a severe economic downturn increases the volume of negative information (Soroka, 2006), particularly in a country like Ireland, where fiscal conditionality and austerity measures were imposed by the IMF, ECB and EU. More formally, we test the following hypothesis:

HP1 : Those who gather news online display significantly more negative attitudes towards the EU's role in the economic crisis than those who do not, *ceteris paribus*.

Media effects do not, however, happen in a void. Citizens have pre-existing preferences and attitudes. Information consumption patterns depend upon these preferences (Iyengar and Hahn 2009; Taber and Lodge 2006; Stroud 2007) and such perceptual biases can affect retention of information (Cobb et al., 2013). This applies to traditional media, but it is particularly relevant to the case of the Internet. Nie et al. (2010) show that using the Internet as a news source exacerbates pre-existing political tendencies, as users can tailor the content that they consume. Simultaneously, the Internet also creates a 'supply' of news that saturates the political space, overlapping with mainstream media at the centre of the distribution, but providing a unique space for the publication of extreme

opinions (Nie et al., 2010; Kim and Kim, 2012). By combining selective exposure with a supply of politically extreme views, the Internet is tailor-made to reinforce the predispositions of its users. With regard to crisis, Hobolt (2014) shows that in evaluating the role of the EU an *absolve/castigate* mechanism - Europhiles exculpate and Eurosceptics condemn Europe - comes into play.

Notwithstanding predispositions, the considerations on the asymmetric effects of positive and negative information and on the context of the crisis remain. Even those who may orient their self-selection of news around positive attitudes towards Europe may encounter a high degree of negativity about the EU on the web. Therefore, the effect of negative information on the probability of blaming the EU is likely to be larger for Eurosceptics than the effect of positive information on the probability of absolving the EU for Europhiles. We test for reinforcement by anticipating that the effects will be substantially different for the two groups.

HP2a : Individuals who are negatively disposed towards the EU and gather news from the Internet will be *considerably* more likely to blame the EU for the economic crisis than individuals who are negatively disposed towards the EU and do not gather news online.

HP2b : Individuals who are positively disposed towards the EU and gather news from the Internet will be *moderately* less likely to blame the EU for the economic crisis than individuals who are positively disposed towards the EU and do not gather news online.

Our empirical strategy enables us (a) to isolate the net difference in blame attribution between Internet users and non-users, (b) to explore whether pre-existing opinions condition this difference, and (c) to assess the difference in the extent to which media effects reinforce predispositions. Armed with these expectations, we proceed to the empirical analysis.

4 Data and Empirical Model

Our analysis relies principally upon the 2011 wave of the Irish National Election Study (INES). The 2011 general election was held on February 25th 2011, following the Green Party's abrupt withdrawal from government on January 23rd. The 2011 wave of the INES aggregates data from 1,863 voters.[2]

Additionally, we employ data from an original survey of Irish voters conducted after the Fiscal Compact Referendum on May 31st 2012. A representative sample of 1,000 Irish voters was interviewed immediately after the referendum and asked a battery of questions on their voting behaviour, their attitudes towards national and international

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[2]Fieldwork face-to-face interviews - was performed by the polling company Red C between March 6th and April 10th. Funding for the 2001 project was provided by the Political Studies Association of Ireland, Trinity College Dublin, Richard Sinnott (University College Dublin), Google and the Electoral Reform Society. The Principal Investigator was Michael Marsh, Trinity College Dublin.

actors, and their patterns of online newsgathering in the run-up to the vote.[3] This second source of data allows us to corroborate our analysis of the INES data by estimating the effects of online newsgathering on a popular vote about an EU-level policy measure that aimed to address the economic crisis.[4] Furthermore, the questions on patterns of online newsgathering in this survey allow us to disentangle the effects of specific types of websites.

4.1 Dependent Variable

Our main dependent variable captures the extent to which respondents blame the EU for the economic crisis. Specifically, it is based on the following question from the INES 2011:

'In the past few years the economy has been in recession. How responsible, if at all, is the European Union for the poor economic conditions of the past two years? Extremely responsible (4), Very responsible (3), Moderately responsible (2), A little responsible (1), Not at all responsible (0), Don't know (5)'.

The resulting variable is ordinal and ranges between 0 and 4. We drop the 'don't know' answers, so we exclude 118 observations for the EU item.[5]

4.2 Treatment

We code a binary variable *Online* that takes a value of 1 for respondents who browse the Internet for politically-relevant news at least once a week and 0 for respondents who never do so. The set of respondents who consume online news is defined as our *treatment group*, whereas the set of respondents who do not go online for news is defined as our *control group* (Rubin 1974; Rosenbaum 2002).

Our treatment is built on a question that asked whether respondents browse the web for politically relevant news and how frequently they do so. In our dataset, 311 respondents use the Internet as a source of political news, i.e. 20 percent of our sample. We recode this ordinal variable as a dummy to facilitate the interpretation of our results and to ease our identification strategy (Imbens and Wooldridge 2008; Kern and Hainmueller 2009). Since our instrument (described below) predicts only whether respondents go online but not how often they go, using an ordinal variable would be problematic to correctly identify our models. In any case, our results are very similar if we rely on such an ordinal variable. Moreover, we obtain similar results if we use different thresholds to create our treatment. Specifically, we build two alternative treatments that score one if respondents respectively go online more than twice a week and more than four times a week (all of these robustness checks are shown in the online appendix).

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[3]The phone survey was performed by RED C.

[4]The Fiscal treaty was approved by 60.3% of voters with an overall 50% turnout. 32% of respondents in our survey reported voting 'No' to the Treaty.

[5]We note here that if we recode the 'don't know' values as midpoints the results are unchanged (see online appendix).

4.3 Covariates

We include a set of covariates to mitigate the omitted variable problem and avoid over-estimating the effect of our treatment. In the *baseline model* we incorporate socio-economic characteristics. These variables are included as controls in all of our models because they influence both attitudes towards the EU and the respondents probability of going online.

Moreover, in Model 2, we include variables relating to media consumption - capturing how many times a week respondents read newspapers, watch TV, and listen to the radio for political news to account for the impact of traditional media. We also control for a fragmentation of respondents' newspaper consumption by means of a dichotomous variable that separates those who regularly read three or more newspapers from those who do not. McMenamin et al. (2013) point out that fragmentation of electoral frames in the Irish media was particularly pronounced during the 2011 electoral campaign. Thus, it might be the case that such a variety of frames in offline media impacts citizens' views of the role of the EU.

Furthermore, we add a variable, labelled *Left*, that scores one if respondents are close to either Sinn Féin and/or the United Left Alliance, the two consistently eurosceptic parties that occupy the extreme left of the Irish 'left-right' continuum. We code the variable *Left* one if respondents score eight or more than eight on an eleven-point like/dislike scale for either Sinn Féin or United Left Alliance, and 0 otherwise. We include two further standard controls for attitudes towards Europe: (1) a variable capturing the level of confidence in the EU (*EU Confidence*); (2) a variable capturing attitudes towards immigration (*Attitude toward Immigration*). We also control for a variable capturing the respondent's self-declared level of interest in politics. Additionally, we include a dummy, labelled *Economy*, that scores one if respondents mention the state of the economy among the first or second most important issues during the 2011 campaign.

Finally, to further control for the urban/rural divide, which significantly affects broadband penetration in Ireland, in Model 4 we include a continuous variable capturing the distance of the respondent's location from the closest city. Specifically, *Distance from City* measures the distance (in kilometres) of the respondent's location from the centre of the nearest city (Ireland's cities are defined by the 2001 Local Government Act as Dublin, Cork, Galway, Limerick and Waterford). Table 1 reports the descriptive statistics for all the variables included in our models.

Table 1 about here

4.4 Identification Strategy

Browsing for political news online is not randomly assigned to individuals. In this case, instrumental variables offer an effective identification strategy. We take advantage of the uneven geographical availability of broadband in Ireland and our econometric approach is similar to that of Kern and Hainmueller (2009). In particular, we exploit the fact that

not every area in Ireland enjoyed broadband coverage during the period under investigation. We code a binary instrument based on information about where respondents live. This dummy variable scores 1 if respondents live in an area with broadband coverage and 0 otherwise. Since this measure of broadband coverage is an original variable (i.e. it is not included in the INES 2011 dataset), we detail below how we built this instrument.

We first encoded the geographical location (latitude and longitude) of respondents (available from the INES 2011). The 1,854 respondents were based in 309 different geographical locations (six respondents per location). We searched for broadband coverage in each location by consulting information supplied by major broadband providers and, additionally, by using two online services which provide detailed information on broadband coverage by location (getbroadband.ie and bonkers.ie).[6] For those locations without broadband coverage, we also performed a final check by searching for the keywords "location+broadband" on google.ie.[7] Figure 1 maps the locations of the respondents to INES 2011 with and without broadband coverage.

Figure 1 about here

Formally, we estimate the following models:

$$Online = \alpha_0 + \beta_1 Broadband\ Coverage_i + \beta_2 X_i + \eta_j + \epsilon_{1i} \tag{1}$$

$$Blaming\ EU = \alpha_1 + \beta_3 \widehat{Online}_i + \beta_4 X_i + \eta_j + \epsilon_{2i}, \tag{2}$$

where *Online* is the dependent variable, *Broadband Coverage* is our instrument, and X is a vector of control variables. Moreover, β_1, β_2, β_3, and β_4 are the coefficients, α_0 and α_1 are constants, and ϵ_{1i} and ϵ_{2i} are error terms. Furthermore, η_j are constituency fixed effects to account for heterogeneity among different areas in Ireland.[8] In the main analysis we use a 2SLS-IV model with adjusted standard errors clustered by the 43 electoral constituencies. Following common practice, we use the Eicker-Huber-White sandwich estimator.[9]

4.4.1 Identification Assumptions

According to Abadie (2003, 234-235), four non-parametric assumptions allow one to identify causal effects in an instrumental variable (IV) model, and we outline how our data meet them in this sub-section. The first assumption requires that it is not the case that there are people who would have browsed for political news online if they had lived in an

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[6]These websites were accessed between October 2011 and December 2011 for the INES dataset and again in June 2012 in order to obtain updated information on respondents to the Fiscal Compact Referendum survey.

[7]For all those locations where the location name was present in more than one county, we used the search: "location+broadband+constituency".

[8]We are unable to use sampling location fixed effects since we have only six observations per location.

[9]Our results are virtually the same if we implement a two-stage estimation 'by hand', i.e. a probit in the first stage and an ordered probit (with bootstrapped standard errors) in the second stage. These additional analyses are available upon request.

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area without broadband coverage, but would not have browsed for political news online if they had lived in an area with broadband coverage. This seems highly unlikely.[10]

The second assumption requires that broadband coverage is a strong instrument for browsing the Internet for news. In other words, the instrument must be highly correlated with our treatment, conditional on X_i. Figure 2 shows that living in an area without broadband coverage is strongly correlated with the probability of not browsing for political news online. Only a few respondents who live in areas without broadband coverage gather news online once or twice a week. Conversely, living in an area with broadband coverage is strongly associated with gathering political news online. The correlation between broadband coverage and online newsgathering is 0.41. Moreover, when we regress broadband coverage on online newsgathering controlling for a large number of covariates, broadband coverage is statistically significant and the F statistics of the first stage are always greater than 10.

Figure 2 about here

The last two of Abadie's (2003) four assumptions are more difficult to justify. The third assumption supposes that the area in which a respondent lives is 'as good as randomly assigned' once we condition on control variables. Assumption four states that broadband coverage explains variation of the dependent variable only through its effect on browsing for news online. These two assumptions together imply that, once we control for a set of covariates, living in an area without broadband *per se* should not impact directly on respondents' propensity to blame the EU for the crisis (but, instead, should do so only through our treatment, browsing the Internet for news).[11]

A way to ensure that these two assumptions are met is to make sure that areas with broadband coverage are similar to areas without broadband coverage in relation to characteristics that might affect attitudes towards the EU's role in the economic crisis. To do so, we rely on entropy balancing (Hainmueller, 2011). This technique is similar to propensity matching, but it does not drop unbalanced observations from the analysis. Specifically, entropy balancing re-weights observations with respect to the instrument (i.e. *Broadband Coverage*) so that all the relevant covariates are balanced (i.e. they have the same mean).[12]

Table 2 shows the means of all the covariates in areas with and without broadband coverage before and after running 'ebalance'. By using entropy balancing the difference in

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[10]We acknowledge that people may access the Internet via 3G devices and/or access the Internet at the workplace. However, as long as 3G use or accessing the Internet from work is not systematically related to broadband access, our effects should still be identified. Moreover, such a possibility may run against our likelihood of observing an effect. If people in places with no broadband availability have other means to access the Internet, our effects should be underestimated.

[11]The correlation between the instrument and the residuals of the second stage is 0.05 and is not statistically significant.

[12]In econometric terms, entropy balancing re-weights the observations to statistically generate a region of common support where areas with and without broadband coverage are comparable on structural covariates. Entropy balancing does this by directly incorporating covariate balance into the weighting function that is applied to the sample units. The net result is that we can compare areas with broadband coverage to a comparable counterfactual of areas without broadband coverage.

means between people living in areas with broadband and people living in areas without broadband is substantially reduced and is never statistically significantly different from zero.[13]

<center>Table 2 about here</center>

5   Main Results

We begin our inferential analysis by running our baseline model and the extensive models using 2SLS-IV with entropy balancing (Table 3). In all the models the *Online* coefficient is always positive and statistically significant at (at least) the 95 percent confidence level. Thus, our analysis implies that people who gather news online attribute more blame to the EU for the economic crisis than people who do not. Given that the mean of the outcome variable is 1.57, the magnitude of the effect is substantial, ranging between 2.18 and 1.37.[14] This implies that gathering information online increases the probability of blaming the EU by (up to) two points. If the average respondent thinks that the EU is moderately responsible for the crisis, the effects of online newsgathering shift the opinion to thinking that the EU is extremely responsible for the crisis. These findings support our first hypothesis, indicating that online newsgathering is a causal driver of negative attitudes towards the EU. Irish citizens who consume online news tend to attribute greater blame to the EU for the economic crisis compared to those who do not gather political information online.

<center>Table 3 about here</center>

In models 6 and 7 we test our reinforcement hypotheses by implementing a split-sample analysis in which we divide our sample, running separate regressions for those respondents with high levels of confidence in the EU *versus* those with low confidence in the EU. Specifically, we use the variable *EU Confidence*. The low-EU-confidence sub-sample is made of the respondents who have 'not very much confidence or 'no confidence at all in the EU. The high-EU-confidence sub-sample is made of the respondents who have 'a great deal of confidence or 'quite a lot of confidence in the EU.[15] The results only partially support the reinforcement argument. The anti-EU effect of online newsgathering is most pronounced among those respondents who hold negative dispositions towards the EU, i.e. there is support for H2a. The coefficient for *Online* is positive and statistically significant in Model 6. On the contrary, the coefficient for *Online* is not statistically significant in model 7. Our analysis indicates that predisposition reinforcement does not take place among respondents who have high levels of confidence in the EU. Indeed, Europhiles who gather online news are not even moderately less likely to blame the EU for

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[13]When we re-weight observations using entropy balancing, the correlation between the instrument and the residuals in the second stage is 0.04 and is not statistically significant.

[14]Regarding 2SLS-IV, (1) the Kleibergen-Paap test shows that our models are not under-identified; (2) the Cragg-Donald Wald F statistic is always greater than 10; (3) the orthogonality conditions are valid (the Anderson-Rubin test is always significant). All diagnostics are reported in Table 3.

[15]Our results are similar if we use an interaction term. Details on the identification strategy and results are provided in the Appendix.

<center>11</center>

the economic crisis compared to Europhiles who do not go online.

These asymmetrical reinforcement effects indicate that the *medium* triggers the castigation mechanism but fails to propel the absolution one. The Chi^2 test indicates that the effect of online information consumption is statistically significantly different between the two groups (Chi^2 = 3.60, p<0.1) with greater magnitude for the Eurosceptics. Such a different effect between Europhiles and Eurosceptics suggests that the former group is less influenced by negative mediated information compared to the latter group. The take-away message is that Internet triggers no positive reinforcement for Europhiles, but online negative information does not affect them as much as it affects Eurosceptics.

To mitigate concerns about violation of the exclusion restriction, we create a variable which captures the distance of an area with broadband from the closest geographical area without broadband. Using this variable, we re-run our main models limiting the sample to areas with broadband that are maximum 3 kilometres (10th percentile) and 9 kilometres (50th percentile) apart from areas without broadband.[16] Even with this relatively low number of observations, our main results are similar to the ones reported above, adding plausibility to the internal validity of our analysis (Models 8-11 in Table 4). Finally, we re-run our main models dropping those respondents who live in Dublin, which is by far the largest Irish city and is also Ireland's most important economic centre. We do so to avoid the possibility that our results are driven by a coincidence of urban/rural and broadband/no broadband areas. By removing respondents from Dublin, we seek to demonstrate that our findings are not driven by urban/rural social, political and economic differences. Once again, our main findings are robust to this specification (Models 12-14 in Table 4).

Table 4 about here

Overall, we find that online newsgathering fosters higher levels of blame attribution to the EU, apparently via a mechanism of reinforcing negative predispositions, while failing to reinforce positive ones. This may be due to the context of the crisis, which accentuates the viability of negative views on the EU. The origins of the crisis and potential solutions remain obscure to most citizens, whose most vivid concern is living with its consequences. In such a scenario, where ordinary citizens are overwhelmed by complex contradictory information, negative messages could be particularly effective. Soroka (2006) shows that public opinion reacts asymmetrically to economic information, finding that negative news appears to exert a stronger effect than positive news. Moreover, we might attribute the findings discussed in this section to the presence in online spaces of negative opinions (which are less likely to appear in traditional media) regarding the role of the EU in the crisis. The following section provides some indications that online spaces do indeed vary in their capacity to affect public opinion.

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[16]Given the low number of observations, we are unable to perform a split-sample test for Model 8.

6 EU Fiscal Compact Referendum

The European Fiscal Compact Treaty - signed on March 2nd 2012 - is one of the key measures that the EU adopted in response to the sovereign debt crisis affecting many of its member states. Because the ratification of EU treaties in Ireland is subject to referendum approval, the Irish case offers a unique opportunity to examine voting behaviour in a referendum concerning the EU's policy response to the crisis. Our assumption here is that voting in favour of the Compact represents an implicit positive assessment not only of this policy instrument but, more generally, of EU economic policies implemented to tackle the crisis. Conversely, a 'No' vote implies a negative evaluation of such measures. Furthermore, the survey on the Fiscal Compact Referendum provides more nuanced data on the specific websites that respondents visited, allowing for some additional insights into how different online *loci* influence public opinion towards the EU. In particular, respondents were asked whether they had visited (a) the Internet; (b) the website of the Referendum Commission; (c) political blogs and forums.

First, we re-run our main model using the Fiscal Compact survey data. In this analysis, our outcome variable is a dummy that scores one if the respondent votes 'No' to the EU Fiscal Treaty.[17] Moreover, although we do not have the same extensive set of control variables as for INES 2011, we include a set of covariates capturing key socio-economic characteristics, attitudes towards the EU and the national government, and evaluations of the Treaty's effects.[18] We use a similar research design to the one employed in our main analysis: (1) we instrument *Online* using *Broadband Coverage*; (2) we balance control variables with respect to *Broadband Coverage* using entropy balancing (see Table A15 in the online appendix). Table 5 shows the results of this analysis, which confirms our previous findings. Specifically, use of the Internet as a news source has a positive and statistically significant effect on the probability of voting 'No' to the EU Fiscal Compact (Model 15). This result, using an alternative dependent variable and an alternative dataset, supports the findings presented above: online newsgathering increases Irish citizens' probability of holding a negative view of the EU's role in the economic crisis.[19]

Second, we explore the impact of specific types of online spaces on voting behaviour in relation to the Fiscal Compact referendum. We create two treatments: *Referendum Commission Website*, which scores one if respondents *only* visited the Referendum Commission website for information about the referendum and scores zero otherwise, and *Forums and Blogs*, which scores one if respondents *only* visited forums/blogs and scores zero otherwise. These two variables account for two online platforms that vary in the extent to which they host opinionated versus factual information. In particular, the Referendum Commission provides factual and balanced information to voters.[20] On the contrary, blogs and forums host opinions that have not undergone a fact-checking process similar to what is guaranteed by traditional media outlets or institutional websites, resulting in a more

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[17] We drop those respondents who refused to answer this question. We are left with 948 observations.

[18] A detailed justification of the inclusion of these covariates is provided in the appendix.

[19] We are unable to run a split-sample analysis on this dataset due to the low number of observations.

[20] The Referendum Commission provided an array of informative material: a youtube video inviting citizens to vote, links to additional audio-visual material, and a booklet. See `http://www.refcom.ie/en/Past-Referendums/Fiscal-Stability-Treaty/`.

opinionated informational output.

Given the very low numbers of respondents who only used the Referendum Commission website (22 respondents) and forums/blogs (31 respondents), we are unable to run a 2SLS-IV, since the instrument is not statistically significant in the first stage. Thus, we run a simple probit regression in which we include both *Referendum Commission Website* and *Forums and Blogs* as well as all our control variables on the right hand-side (Model 16). Specifically, *Referendum Commission Website* is negative and statistically significant, i.e. respondents who only visit the Referendum Commission website are less likely to vote 'No'. Conversely, *Forums and Blogs* has a positive effect on the 'No' vote, although this effect is not statistically significant. Putting these findings together, there is evidence that online content and hosting platforms matter, although these results must be taken with a grain of salt given the aforementioned *caveats* in the data.

Table 5 about here

7 Conclusion

This paper has explored the impact of the Internet on the Irish public's evaluation of the role of the European Union in the on-going economic crisis. The provision of respondent geo-location data in the 2011 INES and Fiscal Compact Referendum survey, together with detailed geographical information on broadband availability in the Republic of Ireland, has allowed us to assess the casual effect of using the Internet to gather politically relevant news on attitudes towards the EU's role in the economic crisis. Our findings show that individuals who use the Internet to gather political news attribute greater blame to the EU and are more likely to vote against European-level policies aimed at ameliorating the crisis.

As Internet penetration grows and online newsgathering is embedded in the information consumption routine of a large number of citizens, the implications of our findings are particularly relevant to the literature on 'media effects'. We also contribute to the debate on reinforcement effects by providing evidence that they are not necessarily symmetric. This lack of symmetry may be dependent on the particular context of this study, but could also feasibly be motivated by the differential strength of pre-existing opinions, as suggested by Bartels (1993). Studies from a range of disciplines within the social sciences have showed that negative information is more memorable than positive information. Our study contributes to this tradition by showing that this trend also applies to online-based information.

The analysis of the Fiscal Compact Referendum survey provides evidence on the specific effects different online *loci* may have: spaces where factual information prevails (the Referendum Commission website) foster a higher likelihood of voting in favour of the Fiscal Treaty, whereas spaces that contain a high potential to amplify opinionated information do not. However, this finding is suggestive in nature, and we would submit that tracing causal mechanisms that underlie the influence that online news exerts on public opinion requires further investigation, with triangulation of observational data and

14

alternative sources. Without such triangulation, it is difficult to disentangle channel from content effects. This has been done in laboratory experiments, where the content can be held constant while varying the medium of transmission.[21] What we have demonstrated in this paper is that there is strong evidence that online newsgathering exerts a substantively important and statistically significant anti-EU influence in terms of blame attribution for the economic crisis.

Finally, our study engages with the recent literature that explores public attitudes towards political actors and institutions in the context of the ongoing economic crisis (Bechtel, Hainmueller, and Margalit 2012; Marsh and Mikhaylov 2012; Magalhaes 2014). By bringing the Internet into the picture, we have unveiled how online newsgathering can provide an echo-chamber for anti-EU opinions. This has potentially strong implications for an institution that remains obscure to many and is often secondary in the agenda of traditional media.

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[21]See Kaid and Postelnicu (2005).

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Figure 1: Geographical distribution of the instrument.
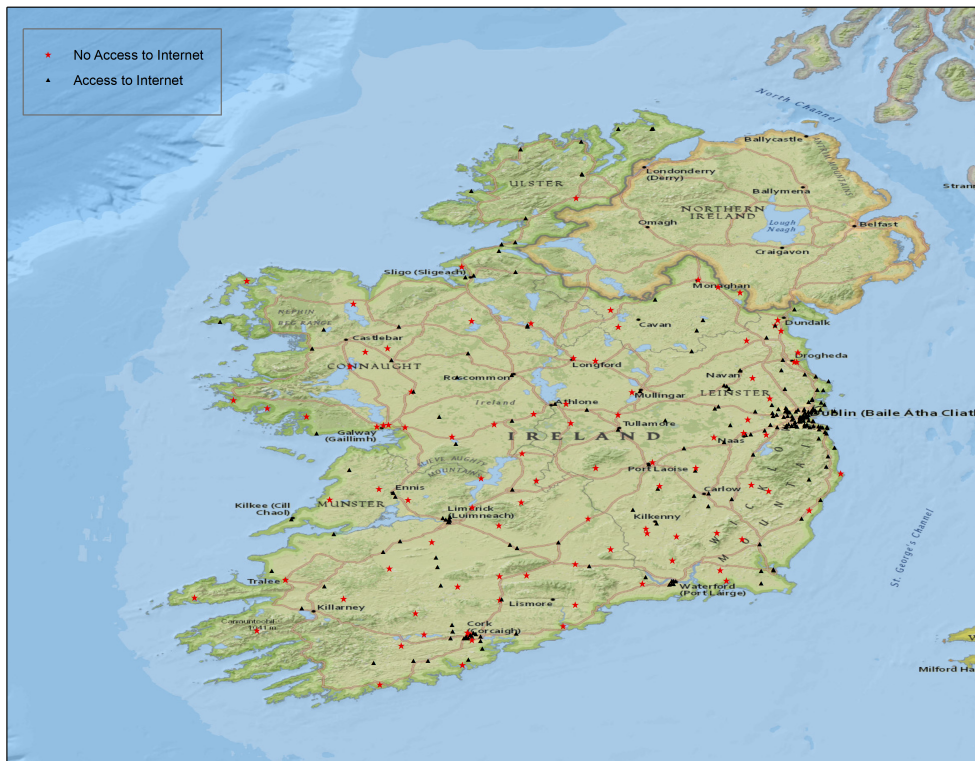
Figure 2: Browsing online news in locations with and without broadband.
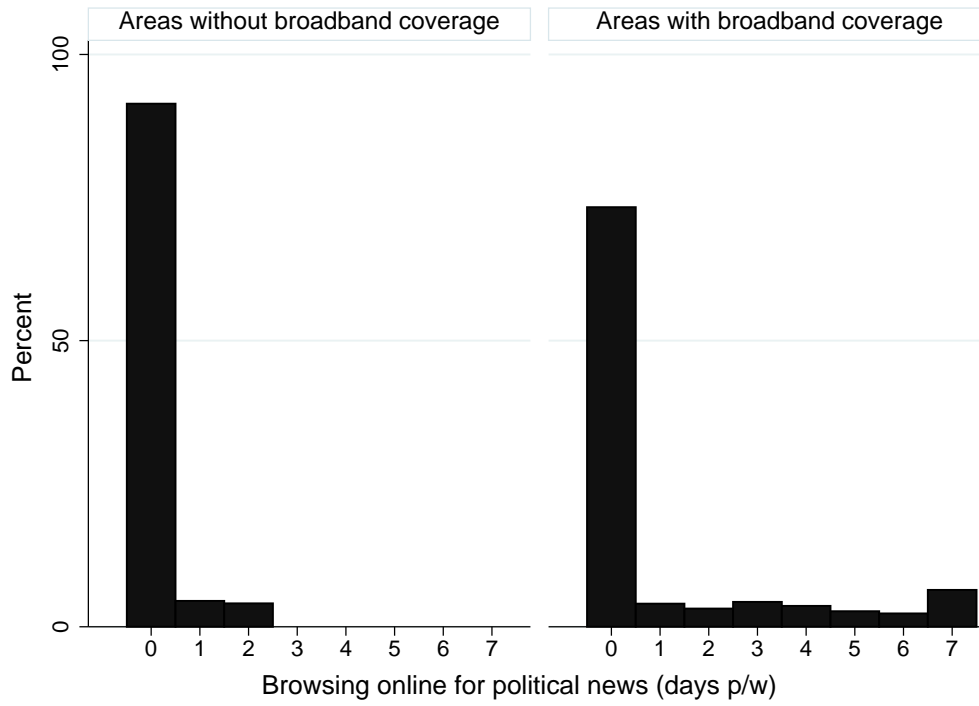
Table 1: Descriptive statistics.

Variables	Mean	Std. Dev.	Min	Max
EU Resp.	2.33	1.13	0	4
Online	0.18	0.38	0	1
Broadband Coverage	0.73	0.44	0	1
Rural	1.40	0.49	0	1
Income	6.18	3.92	1	11
Age	45.14	16.26	18	90
Education	3.32	1.26	1	6
Class	3.06	1.48	1	7
TV	0.97	0.18	0	1
Newspaper	0.86	0.34	0	1
Newspaper Fragmentation	0.04	0.20	0	1
Radio	0.87	0.33	0	1
Interest in Politics	2.64	0.86	1	4
Left	0.15	0.36	0	1
EU Confidence	2.47	0.86	1	4
Attitudes towards Immigration	5.26	1.77	1	8
Economy	0.27	0.45	0	1
Distance City	29.55	31.17	0	141.26

Table 2: Entropy balancing.

	Before Balancing			After Balancing		
	$Broadband = 0$	$Broadband = 1$	t-test	$Broadband = 0$	$Broadband = 1$	Balance
Rural	1.65	1.32	0.00	1.32	1.32	✓
Income	6.35	6.12	0.27			✓
Age	46.18	44.77	0.11			✓
Education	3.14	3.39	0.00	3.39	3.39	✓
Class	3.25	2.99	0.00	2.99	2.99	✓
TV	0.97	0.96	0.73			✓
Newspaper	0.83	0.88	0.02	0.87	0.87	✓
Newspaper Fragmentation	0.04	0.04	0.97			✓
Radio	0.87	0.88	0.74			✓
Interest in Politics	2.54	2.68	0.00	2.68	2.68	✓
Left	0.13	0.16	0.11			✓
Distance City	34.63	27.82	0.00	27.84	27.82	✓
EU Confidence	2.45	2.48	0.63			✓
Attitudes towards Immigration	5.61	5.13	0.00	5.13	5.13	✓
Economy	0.28	0.27	0.63			✓

Table 3: Baseline models and reinforcing mechanism: 2SLS-IV with entropy balancing.

Variables	(1) EU Resp. Whole 2SLS-IV	(2) EU Resp. Whole 2SLS-IV	(3) EU Resp. Whole 2SLS-IV	(4) EU Resp. Whole 2SLS-IV	(5) EU Resp. Whole 2SLS-IV	(6) EU Resp. Low-EU-Confidence 2SLS-IV	(7) EU Resp. High-EU-Confidence 2SLS-IV
Online	**2.184*** (0.940 - 3.428)**	**2.103*** (0.847 - 3.360)**	**1.964*** (0.816 - 3.111)**	**1.967*** (0.816 - 3.118)**	**1.373*** (0.277 - 2.469)**	**1.505** (0.276 - 2.734)**	**0.563 (-0.738 - 1.864)**
EU Confidence			-0.120** (-0.209 - -0.032)	-0.119*** (-0.208 - -0.030)	-0.178*** (-0.251 - -0.104)		
Rural	0.050 (-0.196 - 0.296)	0.067 (-0.181 - 0.315)	-0.002 (-0.245 - 0.242)	0.009 (-0.234 - 0.252)	0.117 (-0.108 - 0.342)	0.110 (-0.196 - 0.416)	0.128 (-0.133 - 0.390)
Income	0.016 (-0.008 - 0.040)	0.011 (-0.014 - 0.036)	0.017 (-0.007 - 0.042)	0.018 (-0.007 - 0.042)	-0.004 (-0.022 - 0.014)	-0.012 (-0.036 - 0.012)	0.003 (-0.022 - 0.028)
Age	0.001 (-0.005 - 0.007)	0.001 (-0.006 - 0.007)	0.005 (-0.002 - 0.011)	0.005 (-0.002 - 0.011)	-0.002 (-0.002 - 0.007)	-0.004 (-0.011 - 0.003)	0.003 (-0.005 - 0.011)
Education	-0.106** (-0.193 - -0.018)	-0.094* (-0.178 - -0.010)	-0.044 (-0.124 - 0.036)	-0.044 (-0.125 - 0.037)	-0.053 (-0.123 - 0.018)	-0.098 (-0.207 - 0.011)	0.003 (-0.068 - 0.074)
Class	0.036 (-0.012 - 0.083)	0.022 (-0.025 - 0.069)	0.017 (-0.027 - 0.061)	0.017 (-0.026 - 0.061)	-0.022 (-0.061 - 0.016)	-0.005 (-0.087 - 0.077)	-0.028 (-0.098 - 0.041)
TV	-0.076 (-0.543 - 0.391)		-0.034 (-0.487 - 0.419)	-0.029 (-0.478 - 0.419)	0.010 (-0.382 - 0.403)	-0.177 (-0.783 - 0.430)	0.109 (-0.155 - 0.372)
Newspaper	-0.026 (-0.266 - 0.215)		0.056 (-0.167 - 0.279)	0.055 (-0.168 - 0.277)	0.100 (-0.092 - 0.293)	-0.145 (-0.420 - 0.131)	0.365*** (0.172 - 0.558)
Newspaper Fragmentation		-0.398** (-0.702 - -0.094)	-0.356** (-0.650 - -0.062)	-0.349* (-0.648 - -0.049)	-0.168 (-0.430 - 0.095)	-0.186 (-0.479 - 0.106)	-0.030 (-0.449 - 0.389)
Radio		-0.083 (-0.295 - 0.130)	-0.094 (-0.284 - 0.097)	-0.097 (-0.291 - 0.098)	-0.098 (-0.327 - 0.130)	-0.164 (-0.527 - 0.199)	-0.038 (-0.289 - 0.214)
Interest in Politics			-0.110 (-0.226 - 0.006)	-0.112 (-0.232 - -0.007)	-0.089 (-0.192 - 0.013)	-0.015 (-0.135 - 0.105)	-0.117 (-0.294 - 0.061)
Left			0.079 (-0.187 - 0.345)	0.078 (-0.189 - 0.345)	0.083 (-0.136 - 0.303)	0.042 (-0.291 - 0.375)	0.170 (-0.054 - 0.395)
Attitudes towards Immigration			0.061*** (0.028 - 0.095)	0.062*** (0.029 - 0.095)	0.058*** (0.021 - 0.096)	0.118*** (0.062 - 0.174)	0.004 (-0.030 - 0.038)
Economy			-0.216* (-0.420 - -0.012)	-0.216* (-0.421 - -0.012)	-0.046 (-0.189 - 0.097)	-0.094 (-0.317 - 0.129)	-0.014 (-0.194 - 0.166)
Distance from City				-0.001 (-0.005 - 0.003)	0.001 (-0.004 - 0.005)	0.000 (-0.006 - 0.007)	0.002 (-0.003 - 0.006)
Constant	1.934*** (1.323 - 2.544)	2.180*** (1.476 - 2.885)	2.111*** (1.444 - 2.778)	2.110*** (1.444 - 2.775)			
Broadband Coverage	0.172*** (0.121 - 0.224)	0.172*** (0.118 - 0.226)	0.180*** (0.126 - 0.235)	0.180*** (0.126 - 0.234)	0.160*** (0.105 - 0.214)	0.157*** (0.068 - 0.245)	0.171*** (0.107 - 0.236)
Cragg-Donald Wald F statistic	109.34***	104.57***	106.64***	106.19***	52.053***	22.457***	29.379***
Kleibergen-Paap LM statistic	20.251***	19.286***	19.498***	19.622***	15.943***	8.319**	15.557***
Anderson-Rubin Wald test	10.46***	9.38***	9.37***	9.27***	4.11**	4.04*	0.47
Constituency fixed-effects	no	no	no	no	no	yes	yes
Balancing	yes	yes	yes	yes	yes	yes	yes
Observations	1,629	1,594	1,472	1,472	1,472	709	763
rmse	1.369	1.354	1.311	1.312	1.103	1.087	0.985

Robust ci in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table 4: Close geographical areas: 2SLS-IV with entropy balancing. Note: Distance captures the distance of an area with (without) broadband from the closest geographical area without (with) broadband.

Variables	(8) EU Resp. Whole Distance<3 2SLS-IV	(9) EU Resp. Whole Distance<9 2SLS-IV	(10) EU Resp. Low-EU-Confidence Distance<9 2SLS-IV	(11) EU Resp. High-EU-Confidence Distance<9 2SLS-IV	(12) EU Resp. Whole Excluding Dublin 2SLS-IV	(13) EU Resp. Low-EU-Confidence Excluding Dublin 2SLS-IV	(14) EU Resp. High-EU-Confidence Excluding Dublin 2SLS-IV
Online	**1.698*** (0.260 - 3.135)**	**1.363* (0.179 - 2.547)**	**1.265* (0.150 - 2.381)**	**0.712 (-0.992 - 2.416)**	**1.342** (0.286 - 2.398)**	**1.407** (0.257 - 2.558)**	**0.522 (-0.792 - 1.835)**
EU Confidence		-0.037 (-0.179 - 0.106)			-0.189*** (-0.278 - -0.099)		
Rural	0.310 (-0.054 - 0.675)	0.089 (-0.221 - 0.398)	0.207 (-0.134 - 0.549)	0.126 (-0.123 - 0.376)	0.134 (-0.109 - 0.377)	0.096 (-0.248 - 0.440)	0.144 (-0.135 - 0.422)
Income	0.012 (-0.025 - 0.048)	0.003 (-0.019 - 0.025)	0.008 (-0.020 - 0.036)	0.016 (-0.006 - 0.038)	0.003 (-0.016 - 0.021)	-0.005 (-0.032 - 0.022)	0.013 (-0.015 - 0.040)
Age	0.001 (-0.007 - 0.009)	0.008** (0.001 - 0.015)	-0.000 (-0.007 - 0.007)	0.010 (-0.001 - 0.021)	0.002 (-0.003 - 0.007)	-0.008* (-0.015 - -0.001)	0.004 (-0.006 - 0.013)
Education	0.041 (-0.103 - 0.186)	0.097* (0.005 - 0.189)	-0.003 (-0.104 - 0.097)	0.102** (0.017 - 0.187)	-0.053 (-0.132 - 0.025)	-0.126* (-0.238 - -0.015)	0.033 (-0.044 - 0.111)
Class	0.075 (-0.020 - 0.171)	0.055 (-0.006 - 0.115)	0.060 (-0.030 - 0.151)	-0.005 (-0.077 - 0.067)	-0.023 (-0.065 - 0.019)	-0.013 (-0.105 - 0.080)	-0.024 (-0.095 - 0.046)
TV		0.546* (0.072 - 1.019)	0.527 (-0.199 - 1.253)	0.390 (-0.095 - 0.876)	0.012 (-0.414 - 0.438)	-0.145 (-0.767 - 0.477)	0.011 (-0.264 - 0.287)
Newspaper		-0.027 (-0.289 - 0.235)	-0.188 (-0.485 - 0.110)	0.251 (-0.055 - 0.557)	0.045 (-0.143 - 0.232)	-0.236 (-0.489 - 0.017)	0.309** (0.097 - 0.521)
Newspaper Fragmentation	-0.027 (-0.289 - 0.235)	-0.112 (-0.420 - 0.195)	-0.179 (-0.477 - 0.119)	-0.045 (-0.538 - 0.447)	-0.095 (-0.347 - 0.157)	-0.050 (-0.341 - 0.240)	-0.010 (-0.434 - 0.413)
Radio	0.052 (-0.265 - 0.370)	0.052 (-0.265 - 0.370)	-0.253 (-0.651 - 0.146)	0.229 (-0.075 - 0.533)	-0.071 (-0.306 - 0.164)	-0.187 (-0.555 - 0.181)	0.042 (-0.184 - 0.268)
Interest in Politics	-0.031 (-0.133 - 0.070)	-0.031 (-0.133 - 0.070)	0.042 (-0.085 - 0.168)	-0.036 (-0.250 - 0.177)	-0.114 (-0.229 - 0.002)	-0.045 (-0.181 - 0.091)	-0.133 (-0.342 - 0.077)
Left	0.216 (-0.117 - 0.548)	0.216 (-0.117 - 0.548)	0.078 (-0.277 - 0.433)	0.330* (0.016 - 0.644)	0.128 (-0.134 - 0.390)	0.112 (-0.287 - 0.512)	0.158 (-0.149 - 0.465)
Attitudes towards Immigration	0.100*** (0.037 - 0.164)	0.100*** (0.037 - 0.164)	0.159*** (0.098 - 0.221)	0.006 (-0.042 - 0.055)	0.059** (0.015 - 0.104)	0.122*** (0.062 - 0.183)	-0.004 (-0.043 - 0.034)
Economy	-0.074 (-0.253 - 0.105)	-0.074 (-0.253 - 0.105)	-0.108 (-0.329 - 0.113)	-0.008 (-0.230 - 0.214)	-0.044 (-0.198 - 0.110)	-0.052 (-0.312 - 0.208)	-0.038 (-0.234 - 0.157)
Distance from City					0.001 (-0.004 - 0.006)	0.001 (-0.005 - 0.007)	0.002 (-0.003 - 0.007)
Broaband Coverage	0.219*** (0.132 - 0.306)	0.180*** (0.123 - 0.236)	0.173*** (0.085 - 0.260)	0.153*** (0.084 - 0.221)	0.164*** (0.108 - 0.219)	0.161*** (0.071 - 0.252)	0.171 (0.107 - 0.235)
Cragg-Donald Wald F statistic	23.712***	42.675***	25.293***	17.330***	56.805***	24.649***	30.412***
Kleibergen-Paap LM statistic	19.128***	13.310***	8.839***	11.258***	16.440***	8.518***	15.598***
Anderson-Rubin Wald test	4.10**	3.04*	3.38*	0.53	4.15**	3.81**	0.539
Constituency fixed-effects	yes	yes	yes	yes	yes	yes	yes
Balancing	yes	yes	yes	yes	yes	yes	yes
Observations	209	730	598	441	1,073	535	538
rmse	1.080	1.108	1.064	0.941	1.090	1.055	0.975

Robust ci in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table 5: EU Fiscal Compact: 2SLS-IV (Model 15) and probit model (Model 16).

Variables	(15) Whole Probability of Voting "No" 2SLS-IV	(16) Whole Probability of Voting "No" Probit
Online	**0.386***	
	(0.020 - 0.753)	
EU Commission Website		**-0.915***
		(-1.480 - -0.349)
Forums & Blogs		**0.274**
		(-0.373 - 0.922)
Age	0.056**	-0.105**
	(0.018 - 0.093)	(-0.178 - -0.032)
Social Class	0.028*	0.045
	(0.004 - 0.051)	(-0.017 - 0.107)
Working Class	0.007	-0.017
	(-0.006 - 0.020)	(-0.074 - 0.039)
Rural	0.038***	0.151**
	(0.014 - 0.061)	(0.050 - 0.252)
EU Confidence	-0.178***	-1.020***
	(-0.251 - -0.105)	(-1.247 - -0.792)
Knowledge of Politics	0.002	-0.003
	(-0.019 - 0.023)	(-0.081 - 0.074)
Effect of the Treaty	0.157***	0.804***
	(0.118 - 0.196)	(0.683 - 0.924)
Government Trust	0.136***	0.457***
	(0.076 - 0.196)	(0.246 - 0.669)
Satisfaction with the Government	0.105**	0.499***
	(0.035 - 0.174)	(0.328 - 0.670)
Knowledge of Treaty	-0.021	-0.038
	(-0.073 - 0.030)	(-0.211 - 0.135)
Constant	-1.089***	-4.724***
	(-1.486 - -0.691)	(-5.711 - -3.738)
Broadband Coverage	0.816***	
	(0.418 - 1.214)	
Cragg-Donald Wald F statistic	25.337***	
Kleibergen-Paap LM statistic	13.428***	
Anderson-Rubin Wald test	2.77*	
Constituency fixed-effects	yes	yes
Balancing	yes	no
Observations	948	948
RMSE	0.310	.

Robust ci in parentheses *** p<0.01, ** p<0.05, * p<0.1