

PDF hosted at the Radboud Repository of the Radboud University Nijmegen

The following full text is a publisher's version.

For additional information about this publication click this link.

<https://hdl.handle.net/2066/226936>

Please be advised that this information was generated on 2021-10-21 and may be subject to change.

Bad News, Declining Trust? Effects of Exposure to Economic News on Trust in the European Union

Anna Brosius, Erika J. van Elsas, and
Claes H. de Vreese

Amsterdam School of Communication Research, University of Amsterdam, the Netherlands

Abstract

Evaluations of the economy are often assumed to be at the heart of citizens' support for political systems. Despite being a vital source of information, we know little about how economic news coverage influences political support. The present study investigates how exposure to economic news coverage impacts trust in the European Union (EU), using a combination of automated content analysis data and nine-wave panel survey data between 2007 and 2016. We find that respondents exposed to more EU economic news lose confidence in the economy and trust in the EU. Yet, while exposure to negative EU economic news negatively affects economic confidence, it has a positive effect on trust in the EU. The opposite is the case for positive coverage.

Introduction

The news media is one of the most powerful information sources for citizens to base their support for a political system on. There is also a long-standing research interest in how the economy influences support for political systems. Common wisdom holds that political trust declines following a recession, and such a decline has been specifically observed in the European Union (EU) after the onset of the Great Recession in 2008. However, existing evidence for

an effect of *objective* economic conditions on political support is mixed (e.g., van der Meer & Hakhverdian, 2017). Citizens' political trust seems to be more influenced by their *subjective* evaluations of the economy than *objective* macroeconomic developments. We know from previous research that economic news coverage can present a skewed image of real-life economic developments, yet is an important source of citizens' economic evaluations (Damstra & Boukes, 2018; van Dalen, Svensson, Kalogeropoulos, Albæk, & de Vreese, 2018). Thus, citizens' subjective perceptions of the economy could diverge from actual developments. This raises the question as to what extent exposure to economic news also impacts citizens' support for the institutions held responsible for economic developments.

The present study analyses the effects of economic news exposure on trust in the EU. The economy is a core policy area for the EU, and member states' economic affairs have become increasingly integrated—particularly during and after the European debt crisis. As the Euro decreased in value, unemployment rates rose, and member states were on the verge of bankruptcy, the EU became a more important political actor. The economy was seen as the most important issue facing the EU in the early 2010s (European Commission, 2018). In parallel to these developments, political support for the EU declined; particularly trust in the EU plummeted (European Commission, 2018). Economic news impacts citizens' evaluations of the economy (Damstra & Boukes, 2018; Hollanders & Vliegenthart, 2011). Yet, it is unclear whether economic media coverage also impacts trust in the institutions responsible for the economy, such as the EU. Furthermore, we know little about the connection between the state of the economy and trust in the EU beyond the specific context of the Euro crisis.

We study the effects of exposure to EU economic news on trust in the EU, using a combination of an automated content analysis of the tone and visibility of economic newspaper coverage in the EU context and individual-level media exposure measures from a nine-wave panel survey in the Netherlands (2007–2016). This dynamic set-up allows us to analyze how change in individual-level exposure to economic news can induce change in trust in the EU. Our study is among the first to use individual-level panel data to test the effects of news exposure on institutional trust. Furthermore, we are able to compare these effects to those of news exposure on economic confidence, which have been established in previous research (Hollanders & Vliegenthart, 2011).

We find that citizens who are exposed to more economic news lose confidence in the economy and trust in the EU. To an extent, this supports the expectation that economic media coverage is an important source of evaluations that drive political trust. However, the results also show an important nuance to this relationship: the effect of economic news coverage on political

trust depends on its tone. Exposure to positive economic news has a positive effect on economic confidence, but has a negative effect on trust in the EU, indicating that the EU does not benefit from positive coverage of economic growth or recovery. Yet, while exposure to negative economic news has the expected negative effect on economic confidence, it has a positive effect on trust in the EU. This suggests that rather than holding the EU responsible for negative economic developments, it may be seen as a remedy for a worsening economic situation, a mechanism which has been termed the “lifebuoy” effect (Harteveld, van der Meer, & de Vries, 2013). More generally, this finding may indicate that citizens are able to distinguish between different objects (i.e., the economy and the EU) when deciding to what extent they trust them, suggesting a higher level of sophistication than often assumed.

Theory

Trust in the EU as an Evaluation of Economic Performance

Political trust changes as evaluations of an institution change (van der Meer & Hakhverdian, 2017) and can thus be conceptualized as a measure of generalized institutional support. Evaluations of the EU are generally categorized into “soft” factors, such as identity considerations, and “hard” factors, such as economic calculus (Hooghe & Marks, 2004; McLaren, 2002). In addition to these factors, citizens base their EU support on cues from national politics (Armingeon & Ceka, 2014; Harteveld et al., 2013). In the context of changing political trust, much scholarly attention has been paid to *performance* of institutions, operationalized as procedural characteristics and economic outcomes. This is in line with the economic voting literature, which shows that citizens vote in favor of a government when the economy develops positively, whereas they vote against it when the economy develops negatively (e.g., Lewis-Beck & Stegmaier, 2000).

However, when it comes to changes in political trust, there is only mixed evidence for the impact of *objective* macro-economic developments, especially when procedural characteristics, such as corruption, are taken into account (see van der Meer & Hakhverdian, 2017 for an overview). In the EU context, the 2010/11 European debt crisis was associated with declines in political trust (Gomez, 2015). Citizens who were personally affected by the crisis were more likely to vote for Eurosceptic parties (Hobolt & de Vries, 2016) and EU support dropped most in countries most affected most by the crisis (Armingeon & Ceka, 2014). However, the relationship between economic developments and EU support beyond this specific crisis is more contested. Eichenberg and Dalton (2007) found that macro-economic performance (GDP, unemployment, inflation) and EU support are only related to each other until the early 1990s, but afterwards (between 1991 and 2004), GDP or unemployment rates no longer influenced

EU support. Koehler et al. (2018), on the other hand, found that higher GDP growth rates are related to higher levels of EU support between 2010 and 2012, but they find the opposite pattern for unemployment rates: In regions where unemployment is higher, citizens support the EU more, indicating that citizens may see the EU as the solution rather than the problem in some cases (Koehler et al., 2018). Other studies have found no effect of objective macro-economic factors on EU support and trust at all (e.g., Armingeon & Ceka, 2014).

While the effect of *objective* macro-economic factors on institutional support is disputed, there is more consistent evidence that citizens' *subjective* evaluations of economic performance influence political trust (Armingeon & Guthmann, 2014; van der Meer & Dekker, 2011). Support for the EU is higher when citizens perceive the economic situation positively (de Vreese & Boomgaarden, 2005; Hooghe & Marks, 2005). This discrepancy in effects of objective indicators and subjective perceptions raises questions about how citizens learn about the economy, how they develop their economic evaluations and expectations, and how they translate these evaluations into support for political institutions.

Effects of Economic News Coverage

A discrepancy between *subjective* perceptions of the economy and *objective* developments may arise if citizens do not evaluate the state of the economy "correctly," which may in part be due to how the economy is covered by the news media. Damstra and Boukes (2018) show that economic news coverage—the main source of information—does not always accurately reflect real-world economic developments, but is typically more negative (see also Hester & Gibson, 2003). Furthermore, there is more economic news coverage when the economic situation worsens than when it improves (Damstra & Boukes, 2018; Soroka, 2012; van Dalen, de Vreese, & Albæk, 2017; but see Casey & Owen, 2013).

However, before turning to our expectations on the effects of *economic* news coverage, a first necessary step is to assess to what extent news consumption *in general* impacts political trust. The existing evidence for this is mixed. Some studies find that there is no relation between media use and political trust (e.g., Moy & Scheufele, 2000). General news consumption was found to be associated with both lower (e.g., Pietsch & Martin, 2011) and higher (e.g., Strömbäck, Djerf-Pierre, & Shehata, 2016) levels of political trust. There are also differential results for different types of media (Avery, 2009; Ceron, 2015; Gross, Aday, & Brewer, 2004). The theoretical assumptions about the effect of media use on political trust are often based on content characteristics of the media, even though those are rarely tested directly. Receiving more information about political institutions could increase perceived transparency and political knowledge and, consequentially, trust. However, using media outlets that contain negative information about politics

may increase cynicism and distrust. The mixed patterns of existing evidence point to the importance of considering both general news consumption as well as consumption of specific content.

There is no evidence regarding the effect of news consumption on trust in the EU, specifically. We hypothesize that increased general news consumption has a positive impact on trust in the EU, as it could increase transparency and political knowledge, which consequently improves political trust (Armingeon & Guthmann, 2014; Karp, Banducci, & Bowler, 2003). This could be particularly important for an institution that citizens generally know little about (Anderson, 1998; Hobolt, 2012).

H1: When citizens increase their news consumption, they trust the EU more.

Even if there are reasons to expect general news consumption to have a universal effect on political trust, the actual *content* of news coverage is crucial for how media effects play out. Changes in the volume and tone of available news media information can impact trust in the EU (Brosius, van Elsas, & de Vreese, 2019). The core interest of the present study is the volume and tone of economic news coverage. Despite not being a perfect reflection of economic developments (and hence potentially inducing incorrect perceptions), economic news coverage is able to convey some information about the state of the economy to citizens: It generally covers broader trends correctly, that is, it is more positive during economic growth and more negative during recession (van Dalen et al., 2017). Economic news coverage not only impacts knowledge, consumer confidence (Hollanders & Vliegthart, 2011), internal economic efficacy (Svensson, Albæk, van Dalen, & de Vreese, 2017), and expectations about the economy (Damstra & Boukes, 2018), but it can also influence political attitudes and voting behavior (Alt, Lassen, & Marshall, 2016; Shah, Watts, Domke, Fan, & Fibison, 1999; Sheaffer, 2008). Furthermore, Kalogeropoulos et al. (2017) show that exposure to economic news drives evaluations of the government based on the economy. There is some evidence that economic news coverage also impact attitudes toward the EU. When the media framed the EU as a “savior” for crisis-affected countries, citizens’ pro-European attitudes were strengthened, but they were weakened when the EU was framed as a victim of the economic crisis (Koehler et al., 2018). Experimental evidence shows that a single media report about the economic situation in a potential member country can influence support for EU enlargement (Maier & Rittberger, 2008). Overall, these findings indicate that economic news coverage may have an effect on trust in the EU. However, there are no studies investigating the effect of changes in economic news coverage on support for the EU beyond the specific context of the European debt crisis. This is somewhat surprising, given that economic policy is at the core of the European project and impacts citizens in all EU member countries. Furthermore, no study has assessed the effects of EU

economic news on EU support in a dynamic setting (i.e., using individual-level panel data), which would allow for a more stringent causal test (van der Meer, 2017). In order to fill these gaps in the literature, we test several hypotheses.

First, we expect that, in the case of the economy, “no news is good news.” Since the news media cover negative economic events more often (even though sometimes in a neutral tone), sheer increased visibility of the economy in the EU context may prompt citizens to become more skeptical of the EU. Furthermore, there is some evidence that EU news can function as a “red cloth” and lead citizens to become more negative if they had negative views on the EU to begin with (Wojcieszak, Azrout, & de Vreese, 2018). Therefore, we expect that mere exposure to news about the EU economy leads to lower trust in the EU.

This assumption is based on the aforementioned studies on the impact of economic news on economic evaluations. To test this effect in parallel, we include confidence in the economy as a second dependent variable. This allows us to not only test the key assumption that citizens pick up economic evaluations from the media, but also to compare the direct effects of media exposure on economic confidence and on trust in the EU. Notwithstanding the more complex, mediated causal mechanisms that could connect these two attitudinal outcome variables, this study focuses on the direct (i.e., simultaneous) effects of changes in EU economic news coverage on trust in the EU and on economic confidence.

H₂: When citizens encounter more news about the EU economy, they lose (a) trust in the EU and (b) confidence in the economy.

However, the specific tone of economic news coverage may have differential effects. We expect that when citizens see more negative news about the economy in the EU, it negatively affects their trust in the EU, whereas positive economic news should have the opposite effect. Previous research shows that negative news have stronger effects than positive economic news (e.g., Hester & Gibson, 2003; Soroka, 2006) and negative news can, in particular, also adversely impact political trust (Kleinnijenhuis, Hoof, & Oegema, 2006). Thus, we expect that the effect of positive EU economic news coverage is comparatively weaker.

H₃: When citizens encounter more negative news about the EU economy, they lose (a) trust in the EU and (b) confidence in the economy.

H₄: When citizens encounter more positive news about the EU economy, they gain (a) trust in the EU and (b) confidence in the economy.

Method

Survey Data

We use panel survey data of the LISS (Longitudinal Internet Studies for the Social Sciences) panel administered by CentERdata (Tilburg University, The

Netherlands). This is a high-quality panel survey conducted among a true probability sample of the Dutch population. 46.3% of the sample in this study are female, are on average born in 1965 ($SD = 18.01$), and the average monthly net income is 1,474.8€ ($SD = 4,191.5€$). The average educational attainment is between higher secondary and intermediate vocational education.¹ The sub-study, “Politics and Values,” includes measures of media use and political trust, which are collected annually toward the end of each year, with most fieldwork occurring in December, covering the period between 2007 and 2016 (with the exception of the skipped year 2014). For a detailed description of the panel, see Scherpenzeel and Das (2010).

News media use is operationalized as a simple additive index of the answers to the question: “Do you follow the news (a) on television or on the radio, (b) on the Internet, (c) in a free daily newspaper, and (d) in a paid or subscription-based newspaper?” The resulting variable ranges from 1 (no exposure) to 5 (all media sources). Trust in the EU is operationalized as the question of how much trust a respondent has in the European Parliament, measured on scale ranging from 0 (no trust at all) to 10 (full trust). There is a strong correlation between trust in the EU and trust in the European Parliament [e.g., $r = .76$ ($p < .01$) in a survey among the Dutch population ($N = 2,236$, measured on the same 11-point-scale, see Wave 3 of the *Euroinions* dataset)]. Thus, the latter can be used as a proxy (see e.g., Muñoz, Torcal, & Bonet, 2011). Confidence in the economy was measured on the same scale, asking respondents how confident in the economy they felt.² This question taps general economic confidence, not referring to either the national or European context.

Media Data

Our media corpus consists of news about the EU and its institutions in five Dutch newspapers, which reflect a wide range of the political spectrum: quality newspapers, *De Volkskrant* and *Trouw*, the tabloid-like *Algemeen Dagblad*, the tabloid, *De Telegraaf*, and the free newspaper, *Metro*. Between 55% (2008) and 39% (2016) of panel respondents followed the news in a newspaper. However, we assume that media reports from other sources, such as TV and online news, report about the economy similarly and that hence, our choices reflect the general news media environment to which respondents were exposed, be it through direct media consumption or incidental exposure.

¹The sociodemographic variables are obtained from the wave of December 2016. Missing values were supplemented with waves from December 2017, 2015, 2013, 2011, 2009, and 2007, in that order.

²It is noteworthy that the survey was conducted in the respondents’ native language Dutch, which does not linguistically distinguish between confidence and trust (both concepts translate as “*vertrouwen*”). However, we used the English terms from the literature, which in the context of the economy is typically “confidence,” whereas in the context of political support, it is typically “trust.”

Of course, different media outlets can have rather differential content overall, but since we are not able to analyze media coverage in more detail retrospectively, we assume that relative changes in the attention to the economy and trends in its coverage are similar, albeit not identical, across different media outlets. We also conduct an analysis only including the use of newspapers as a robustness check. The time frame between 2007 and 2017 corresponds to the panel data and covers periods before, during, and after the 2010/11 European debt crisis, as well as a longer period of economic recovery and relative stability. The included articles all contain a reference to either the EU (sometimes dubbed as “Brussels”) or one of its institutions (European Commission, Parliament, Central Bank, the Eurozone, or the Eurogroup) in the headline or subtitle. The corpus is reduced to articles that are about the economy, following Damstra & Boukes (2018), depending on whether certain economic words appear either in the headline or the article lead (which we defined as the first 100 words of the text). The resulting corpus ($N = 4,715$) is one of economic news coverage with a strong and explicit connection to the EU, and therefore most likely to impact EU opinions. A manual check of a random sample of 100 articles showed that 99 of the articles are related to the economy; the Damstra & Boukes (2018) identification procedure is thus reliable for our sample.

We analyzed the sentiment of the articles automatically, using two different approaches in order to compare their reliability. First, we followed the bag-of-words approach of Damstra & Boukes (2018), based on 30 positive key words and 35 negative key words. Boukes et al. (2018) show that the Damstra and Boukes approach, compared to other methods of automated sentiment analysis, performs well when analyzing full articles. Second, we analyzed text and headlines using the alternative bag-of-words based algorithm SentiStrength (Thelwall, Buckley, & Paltoglou, 2012), which is based on a larger corpus of positive and negative words and also considers negation and booster words. Sentiment scores from SentiStrength range between 1 (neutral) and 5 (very positive or negative). Sentiment scores for the Damstra and Boukes approach reflect the number of occurrences of positive or negative words. For both approaches, we weighed the headline score three times³ in the overall score, as the headline typically has a bigger impact, yet has much fewer words that could be detected by any automated sentiment analysis. The overall sentiment score is the sum of the headline score and the text score.

As recommend by Boukes et al. (2018), we conducted a manual analysis to validate which approach is more suited to analyze our specific dataset. We analyzed a random subsample of 100 articles, regarding whether the tone of the main

³In order to ensure that our results are not driven by weighing the headlines more, we ran our analyses without weights as well. The weighing does not substantively change the effects reported; most become larger in size. However, we decided to report our initial weighed results for transparency and a more conservative interpretation.

text of the article was positive, negative, neutral, or mixed (i.e., contained both positive and negative evaluations). We then classified the automated scores into the same categories. When no tone was detected by the automated methods, they were classified as neutral. When the same amount of positive and negative words was detected in an article, the article was classified as mixed. Articles were classified as positive when only positivity was detected *or* when the positivity score was higher than the negativity score. The reverse procedure was used for negative classifications. The results of the manual analysis showed that SentiStrength classified 59% of the articles in the same way as the human coder. If the mixed-classification allowed for a difference of one point in negativity and positivity (even though both had to be present), the correctly classified percentage is 72%. This result, even though only for our specific sample, is somewhat higher than for the Damstra & Boukes (2018) approach, which is why we conduct the main analysis using SentiStrength scores for sentiment.

Analytical Strategy

In order to test our hypotheses, we estimate fixed effect panel models, using the *plm* package (Croissant & Millo, 2008) in R (R Core Team, 2016). Panel models offer the advantage that the effects of unobserved time-invariant variables, such as sociodemographics or personality traits, are controlled for. We controlled for the effects of two additional, potentially time-variant variables: political interest and trust in the national parliament (see Models 2, 4, 6, and 8, which are replicates of Models 1, 3, 5, and 7, respectively, with the two control variables included). To measure the key independent variable of exposure to EU economic news coverage, we create an individual-level variable by multiplying yearly scores for the media environment (both visibility and tone) with a respondent's total news media consumption score in that year. This way, the media variables represent the likelihood of encountering negative, positive, or a higher or lower amount of EU economic news based on two time-varying variables: respondents' individual media use as well as the available information in the general media environment. Results are visualized using the R packages *stargazer* (Hlavac, 2018) and *ggplot2* (Wickham, 2016).

Results

Table 1 shows descriptive statistics of all the variables used in our analysis. Most respondents watch television news, about half consume newspaper and online news, and only a fifth reads free newspapers.

Fluctuations of the dependent variables over time are displayed in Figure 1. Trust in the EU declines somewhat over time, and is particularly low during the economic crisis. Confidence in the economy steeply declines after 2010, at the height of the European debt crisis, but then recovers to pre-crisis levels in 2016, likely a reaction to the improving economic situation.

Table 1
Descriptive Statistics

Statistics	<i>N</i>	Mean	SD	Min	Max
National parliament trust	51,120	5.41	1.96	0	10
EU trust	50,198	4.55	2.19	0	10
Economic confidence	51,901	5.62	1.79	0	10
Political interest	53,613	1.93	0.60	1	3
Media use	53,643	3.02	0.90	1	5
Television news	53,643	0.89	0.32	0	1
Free newspapers	53,643	0.18	0.39	0	1
Newspapers	53,643	0.48	0.50	0	1
Internet news	53,643	0.46	0.50	0	1
Positivity	113,121	5.54	0.12	5.34	5.72
Negativity	113,121	7.22	0.19	6.78	7.46
Visibility	113,121	762.00	142.96	616	1,006

Note. EU = European Union; SD = standard deviation.

Trust in the EU only slightly recovers from its decline in crisis years, but is also more stable overall, which is typical of institutional trust (Ringlerova, 2015).

Figure 2 shows the visibility of economic news between 2007 and 2016. Newspaper coverage increased considerably in the years following the economic crisis, particularly at the height of the European debt crisis in 2011. Arguably, the crisis made the economy a more salient topic, which thus became more prominent in the news media. The decline after 2014 may be due to the public and political debate shifting to other issues, such as immigration in relation to the refugee crisis in 2015. Eurobarometer trends (European Commission, 2018) show that, while the economy was considered the most important issue facing the EU by citizens until 2014, other issues, such as immigration or terrorism, became more central after that point.

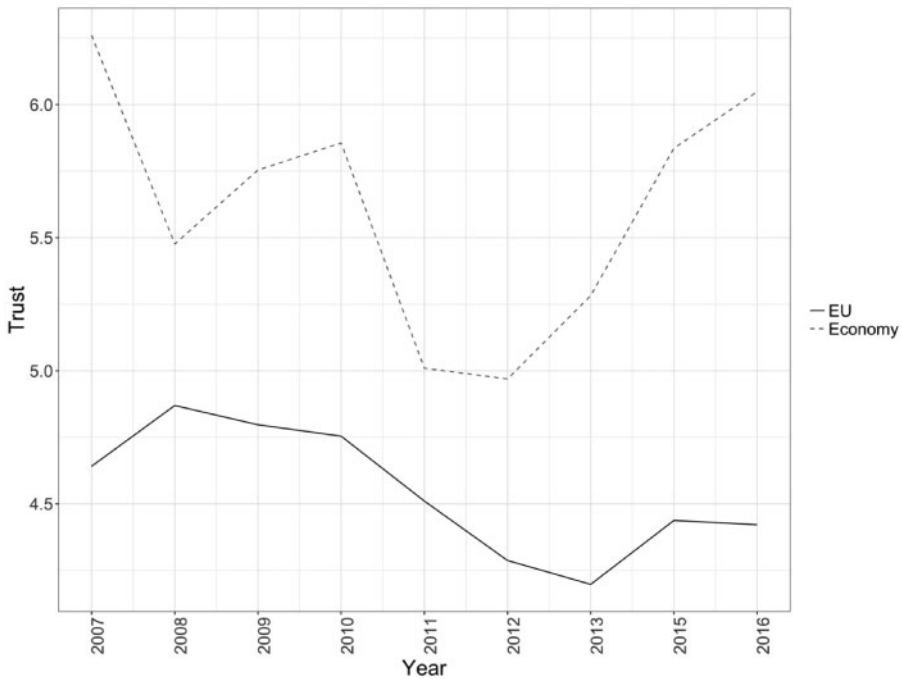
The SentiStrength scores show that economic newspaper coverage, on average, is more negative than positive. Figure 3 illustrates the development of tone over time. Negativity increases from 2009 onward, in line with the start of the financial crisis and culminating in 2011 and 2012, at the height of the Euro crisis. Negativity then decreases after 2012, in line with the general economic developments. Positivity generally follows the opposite pattern.

All results from the panel analysis are displayed in Table 2. Model 1 shows that general news consumption has a positive effect on trust in the EU; however, the effect is not statistically significant when controlled for political interest and trust in the national parliament (see Model 2). Model 3 shows the differential influence of the consumption of specific news media on EU trust. Newspaper readership and watching television news have a

Figure 1

Development of confidence in the economy and trust in the EU.

Note. y-axis adjusted for better visibility of changes. EU = European Union



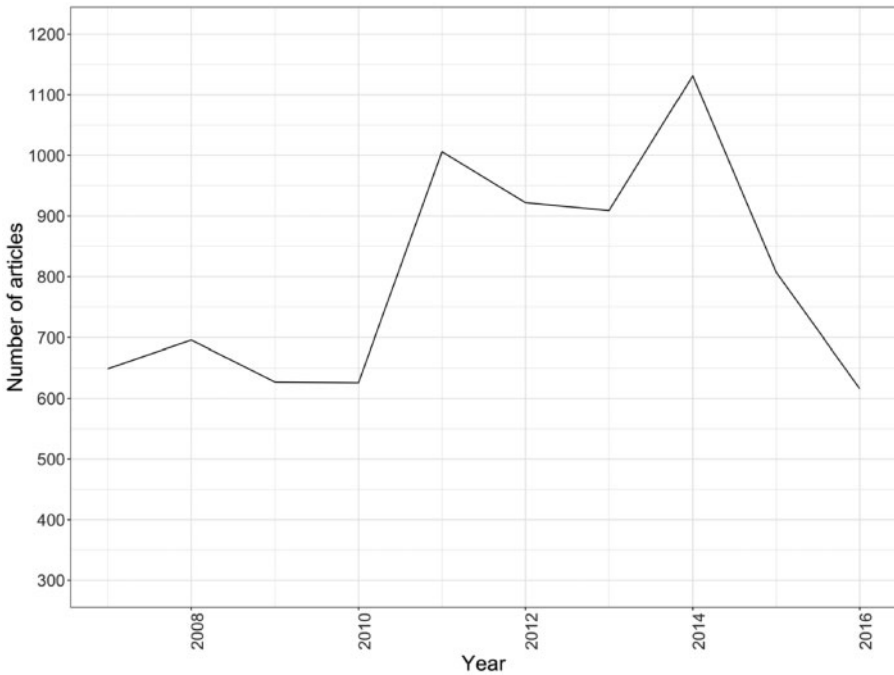
positive influence on trust in the EU, but the consumption of online news has a negative effect. These effects do not change substantively when control variables are included (see Model 4).

Turning to the effects of economic EU news coverage, Model 5 (and Model 6 with control variables) shows the effect of economic media exposure on trust in the EU; Model 7 (and Model 8 with control variables) shows the effects on economic confidence. As expected, higher visibility of economic news has a negative effect on trust in the EU as well as confidence in the economy; when citizens are exposed to more articles about the economy, both their confidence in the economy and their trust in the EU becomes lower. This confirms Hypothesis 2; however, the effects are small. The results for tone are less straightforward: Exposure to negative economic news coverage has a small positive effect on trust in the EU and a negative effect on economic confidence, confirming our expectations for Hypothesis 3b, but not 3a. Exposure to positive coverage has a small negative effect on trust in the EU and a positive effect on economic confidence, confirming Hypothesis 4b, but not 4a. For all models, it is noteworthy that the explained variance (R^2) is very

Figure 2

Development of visibility of EU economic news coverage.

Note. *y*-axis adjusted for better visibility of changes. EU = European Union



low; media exposure can thus only explain a small portion of variance in changes in political trust in the EU. Even though the control variables increase the explained variance and have considerable effects on trust in the EU and confidence in the economy, their inclusion does not alter the substantive conclusions drawn from the results.

We conducted a robustness check aimed at validating the results regarding the generalization of our newspaper content analysis to other media outlets. We tested whether the effects that we found also apply if we only consider newspaper use connected to the content data from the newspapers. The results are all consistent with the main model, both for trust in the EU and confidence in the economy, albeit with somewhat larger effects sizes (see [Supplementary Appendix A](#)).

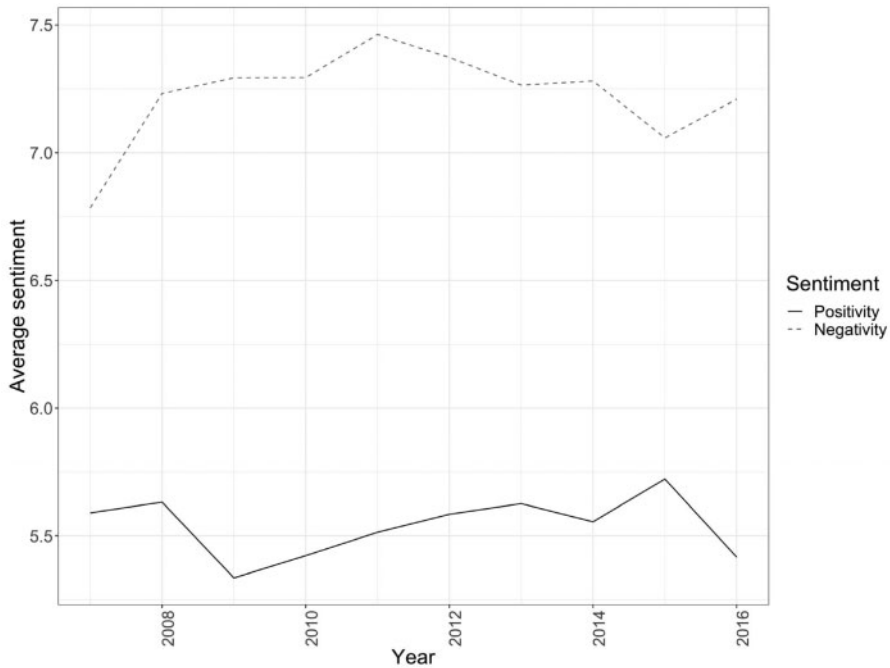
Discussion

Our results show that content and tone matter when it comes to the effects of media exposure on trust in the EU. The effects of general news consumption

Figure 3

Development of positivity and negativity in EU economic news coverage, following SentiStrength.

Note. y-axis adjusted for better visibility of changes. EU = European Union



on trust are modest and depend on the specific outlets, which indicates that the relation between media use and political trust is by no means a monolith: It likely depends on context, recipient, media, and content characteristics. The core of our study addresses the effect of exposure to economic news content on trust in the EU: We find that when individuals are exposed to more information about the EU economy, their economic confidence and their trust in the EU decrease. This might be because economic news coverage occurs more often in times of recession, regardless of its tone. When a political institution is often connected to news about economic downturn or recession, it may lose its citizens' trust. This aligns with the literature on economic evaluations and political trust, suggesting that utilitarian considerations (or

Table 2
Results

	Dependent variable							
	EU trust				Economic confidence			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
News consumption	0.03* (0.01)	0.01 (0.01)						
Television news			0.09*** (0.03)	0.06* (0.02)				
Online news			-0.12*** (0.02)	-0.10*** (0.02)				
Newspapers			0.10*** (0.02)	0.08*** (0.02)				
Free newspapers			0.10*** (0.02)	0.04* (0.02)				
Media visibility					-0.03*** (0.002)	-0.01*** (0.001)	-0.08*** (0.001)	-0.07*** (0.001)
Positivity					-0.04*** (0.01)	-0.02*** (0.01)	0.28*** (0.01)	0.29*** (0.01)
Negativity					0.06*** (0.01)	0.03*** (0.01)	-0.13*** (0.01)	-0.15*** (0.01)
Trust in the national parliament		0.53*** (0.005)		0.53*** (0.005)		0.52*** (0.005)		0.34*** (0.005)
Political interest		0.06*** (0.02)		0.06*** (0.02)		0.06*** (0.02)		0.07*** (0.02)
Observations	50,198	49,680	50,198	49,680	50,198	49,680	51,901	50,454
R ²	0.0002	0.27	0.002	0.27	0.01	0.27	0.09	0.20
F statistic	6.46* (df = 1; 38,039)	4,550.06*** (df = 3; 37,565)	21.41*** (df = 4; 38,036)	2,288.28*** (df = 6; 37,562)	117.71*** (df = 3; 38,037)	2,742.51*** (df = 5; 37,563)	1,351.48*** (df = 3; 39,573)	1,919.70*** (df = 5; 38,250)

Note. EU European Union. **, * p > .01; *** p > .001.

“hard” factors) play a role in forming political trust. The economy is one of the core competences of the EU; thus, if the economy is not going well, citizens may trust the EU less.

When taking the tone of the news coverage into account, a more nuanced picture emerges. Our results show that, in line with our expectations, exposure to positive economic news increases economic confidence and exposure to negative news decreases confidence. For trust in the EU, however, the relationships are different than expected. First, exposure to positive EU economic news coverage has a small negative effect on citizens’ trust in the EU, contradicting our expectation. This seems to indicate that while economic confidence increases, the EU does not benefit from positive economic coverage in terms of gaining its citizens’ trust. Furthermore, and also against our expectation, exposure to negative economic news coverage has a positive effect on trust in the EU. A possible explanation for this finding is that some citizens see the EU as an effective actor in the crisis. The EU’s policies—such as the provision of bailout packages to some member states—may be seen as a buffer that prevented worse effects of the crisis on the economy. Koehler et al. (2018) make an argument along these lines: When the EU is framed as a “savior” in coverage of the economic crisis, citizens support for the EU increases, whereas it decreases when the EU is framed as a “victim.” The positive effect of negative coverage may thus be due to the specific framing of the EU as a remedy for the crisis in the negative coverage.⁴ This would also explain that citizens’ economic confidence decreases as the tone becomes more negative, while their trust in the EU increases. It could also explain why increased visibility of the EU economy, controlled for tone, has a negative effect—it might portray the EU’s role differently than negative economic coverage. Overall, it is noteworthy that the effects of economic news coverage on trust in the EU are considerably smaller than on economic confidence and that the effects go in opposite directions, rather than going hand in hand.

Our results thereby open up an important avenue for future research. Traditionally, many researchers assume that citizens extrapolate from economic evaluations to political support; if the first is evaluated positively, the latter will be, too. Our results, however, show that citizens might distinguish between confidence in the economy and trust in the EU, rather than uniformly decreasing their overall trust in response to negative information and increasing it in response to positive information. This line of research could further be extended by disentangling information about the economy at different levels of governance, given how intertwined political responsibilities of

⁴While we have no information about the prevalence of the “victim” and “savior” frames in positive and negative news coverage, we know that Koehler et al. (2018) find that the about 10% of coverage make use of the “victim” frame, according to which the EU is suffering from the crisis, whereas about 20% make use of the “savior” frame, according to which the EU is responsible for solving the crisis.

the EU and national political institutions are. For example, one could consider distinguishing between media evaluations of national and European economic performance, as well as blame shifting of political actors between the two levels.

Limitations

The limitations of our study mainly relate to the content analysis. First, even though we are analyzing a large amount of economic newspaper coverage, and newspaper coverage can function as a proxy for other media outlets, a more extensive content analysis would allow for more fine-grained results. An analysis on the outlet level, connected to survey data on the use of these outlets, could provide more detailed insights into the relationship between media use, content, and political trust in the future. However, the time span of one decade covered by our study implies several practical limitations to a retrospective analysis of TV and online news. Second, the conclusions drawn from automated analyses of tone can sometimes be problematic. Bag-of-words approaches rely on the characteristics of the words included in a pre-defined dictionary and do not always recognize negations. Our manual analysis also shows that the automated identification of tone does not always match human coding. However, issues of reliability also exist between different human coders. Some other limitations of automated analyses, such as recognizing irony and spelling errors, are less pressing in the case of newspaper articles.

Another potential limitation is related to the survey data: We use trust in the European Parliament as a proxy for trust in the EU in general. While the two are closely related, some citizens may have more specific attitudes to different European institutions, especially if they are highly interested in politics. Future research should assess how (economic) evaluations impact distinct (national or European) institutions differently—which could shed light on the degree of sophistication involved in judgments of political trust. Furthermore, even though the measures of media use in the LISS panel can give an indication of a person's media use, more detailed measures of daily media use on an outlet level could result in better estimates of media effects.

Finally, the effect sizes generally remain rather small, which shows that media use—at least as measured in the present study—is a rather minor factor influencing changes in an individual's political trust. However, by analyzing only within-respondent changes in economic and EU trust, our modeling strategy is conservative, and a stable construct like political trust is not prone to strong over-time fluctuations (Ringlerova, 2015). Thus, regardless of the size of these effects, our research makes an important contribution. It shows how both general news media use, as well as exposure to more specific economic news content, can influence political trust in the EU. Furthermore,

it shows that citizens' trust evaluations can be rather refined and targeted at specific (political) objects, such as the EU or the economy.

Supplementary Data

Supplementary Data are available at *IJPOR* online.

Funding

This research is funded by a grant from the European Research Council (ERC), grant number 647316. The LISS panel data were collected by CentERdata (Tilburg University, The Netherlands) through its MESS project funded by the Netherlands Organization for Scientific Research.

References

- Alt, J. E., Lassen, D. D., & Marshall, J. (2016). Credible sources and sophisticated voters: When does new information induce economic voting? *The Journal of Politics*, 78(2), 327–342. doi:10.1086/683832
- Anderson, C. J. (1998). When in doubt, use proxies: Attitudes toward domestic politics and support for European integration. *Comparative Political Studies*, 31(5), 569–601. doi:10.1177/0010414098031005002
- Armington, K., & Ceka, B. (2014). The loss of trust in the European Union during the great recession since 2007: The role of heuristics from the national political system. *European Union Politics*, 15(1), 82–107. doi:10.1177/1465116513495595
- Armington, K., & Guthmann, K. (2014). Democracy in crisis? The declining support for national democracy in European countries, 2007–2011: Democracy in crisis? *European Journal of Political Research*, 53(3), 423–442. doi:10.1111/1475-6765.12046
- Avery, J. M. (2009). Videomalaise or virtuous circle? The influence of the news media on political trust. *The International Journal of Press/Politics*, 14(4), 410–433. doi:10.1177/1940161209336224
- Boukes, M., van de Velde, B., Araujo, T., & Vliegthart, R. (2018). *The good and bad in economic news: Comparing (automatic) measurements of sentiment in Dutch economic news*. Presented at the International Communication Association 68th Annual Conference, Prague, Czech Republic.
- Brosius, A., van Elsas, E. J., & de Vreese, C. H. (2019). Trust in the European Union: Effects of the information environment. *European Journal of Communication*, 34(1), 57–73. doi:10.1177/0267323118810843
- Casey, G. P., & Owen, A. L. (2013). Good news, bad news, and consumer confidence: Economic news and consumer confidence. *Social Science Quarterly*, 94(1), 292–315. doi:10.1111/j.1540-6237.2012.00900.x
- Ceron, A. (2015). Internet, news, and political trust: The difference between social media and online media outlets. *Journal of Computer-Mediated Communication*, 20(5), 487–503. doi:10.1111/jcc4.12129

- Croissant, Y., & Millo, G. (2008). Panel data econometrics in R: The plm package. *Journal of Statistical Software*, 27(2), 1–43.
- Damstra, A., & Boukes, M. (2018). The economy, the news, and the public: A longitudinal study of the impact of economic news on economic evaluations and expectations. *Communication Research*, 1–25. doi:10.1177/0093650217750971
- de Vreese, C. H., & Boomgaarden, H. G. (2005). Projecting EU referendums: Fear of immigration and support for European integration. *European Union Politics*, 6(1), 59–82. doi:10.1177/1465116505049608
- Eichenberg, R. C., & Dalton, R. J. (2007). Post-Maastricht blues: The transformation of citizen support for European Integration, 1973–2004. *Acta Politica*, 42(2–3), 128–152. doi:10.1057/palgrave.ap.5500182
- European Commission. (2018). *Standard Eurobarometer 89*. Brussels: Kantar public.
- Gomez, R. (2015). The economy strikes back: Support for the EU during the Great Recession. *JCMS: Journal of Common Market Studies*, 53(3), 577–592. doi:10.1111/jcms.12183
- Gross, K., Aday, S., & Brewer, P. R. (2004). A panel study of media effects on political and social trust after September 11, 2001. *The International Journal of Press/Politics*, 9(4), 49–73. doi:10.1177/1081180X04269138
- Harteveld, E., van der Meer, T. W. G., & de Vries, C. E. (2013). In Europe we trust? Exploring three logics of trust in the European Union. *European Union Politics*, 14(4), 542–565. doi:10.1177/1465116513491018
- Hester, J. B., & Gibson, R. (2003). The economy and second-level agenda setting: A time-series analysis of economic news and public opinion about the economy. *Journalism & Mass Communication Quarterly*, 80(1), 73–90. doi:10.1177/107769900308000106
- Hlavac, M. (2018). *stargazer*: Well-formatted regression and summary statistics tables. Retrieved from <https://CRAN.R-project.org/package=stargazer>
- Hobolt, S. B. (2012). Citizen satisfaction with democracy in the European Union. *JCMS: Journal of Common Market Studies*, 50(1), 88–105. doi:10.1111/j.1468-5965.2011.02229.x
- Hobolt, S. B., & de Vries, C. (2016). Turning against the Union? The impact of the crisis on the Eurosceptic vote in the 2014 European Parliament elections. *Electoral Studies*, 44, 504–514.
- Hollanders, D., & Vliegenthart, R. (2011). The influence of negative newspaper coverage on consumer confidence: The Dutch case. *Journal of Economic Psychology*, 32(3), 367–373. doi:10.1016/j.joep.2011.01.003
- Hooghe, L., & Marks, G. (2004). Does identity or economic rationality drive public opinion on European Integration? *PS: Political Science & Politics*, 37(3), 415–420.
- Hooghe, L., & Marks, G. (2005). Calculation, community and cues: Public opinion on European integration. *European Union Politics*, 6(4), 419–443.
- Kalogeropoulos, A., Albæk, E., de Vreese, C. H., & van Dalen, A. (2017). News priming and the changing economy: How economic news influences government evaluations. *International Journal of Public Opinion Research*, 29(2), 269–290. doi:10.1093/ijpor/edvo48

- Karp, J. A., Banducci, S. A., & Bowler, S. (2003). To know it is to love it? Satisfaction with democracy in the European Union. *Comparative Political Studies*, 36(3), 271–292. doi:10.1177/0010414002250669
- Kleinnijenhuis, J., Hoof, A. M. J., & Oegema, D. (2006). Negative news and the sleeper effect of distrust. *The International Journal of Press/Politics*, 11(2), 86–104. doi:10.1177/1081180X06286417
- Koehler, C., Weber, M., & Quiring, O. (2018). I want a savior, not a victim. The impact of media representations of the EU and economic shocks on citizens' supportive attitudes on the European integration. *International Journal of Public Opinion Research*, 31, 45–69.
- Lewis-Beck, M. S., & Stegmaier, M. (2000). Economic determinants of electoral outcomes. *Annual Review of Political Science*, 3(1), 183–219. doi:10.1146/annurev.polisci.3.1.183
- Maier, J., & Rittberger, B. (2008). Shifting Europe's boundaries: Mass media, public opinion and the enlargement of the EU. *European Union Politics*, 9(2), 243–267. doi:10.1177/1465116508089087
- McLaren, L. M. (2002). Public support for the European Union: Cost/benefit analysis or perceived cultural threat? *The Journal of Politics*, 64(2), 551–566. doi:10.1111/1468-2508.00139
- Moy, P., & Scheufele, D. A. (2000). Media effects on political and social trust. *Journalism & Mass Communication Quarterly*, 77(4), 744–759. doi:10.1177/107769900007700403
- Muñoz, J., Torcal, M., & Bonet, E. (2011). Institutional trust and multilevel government in the European Union: Congruence or compensation? *European Union Politics*, 12(4), 551–574. doi:10.1177/1465116511419250
- Pietsch, J., & Martin, A. (2011). Media use and its effect on trust in politicians, parties and democracy. *Australasian Parliamentary Review*, 26(1), 131–141.
- R Core Team. (2016). R: A language and environment for statistical computing. *R Foundation for Statistical Computing, Vienna, Austria*. Retrieved from <https://www.R-project.org/>
- Ringlerova, Z. (2015). Weathering the crisis: Evidence of diffuse support for the EU from a six-wave Dutch panel. *European Union Politics*, 16(4), 558–576. doi:10.1177/1465116515588964
- Scherpenzeel, A. C., & Das, M. (2010). “True” longitudinal and probability-based Internet panels: Evidence from the Netherlands. In M. Das, P. Ester, & L. Kaczmirek (Eds.), *Social and behavioral research and the internet: Advances in applied methods and research strategies* (pp. 77–104). Boca Raton: Taylor & Francis.
- Shah, D. V., Watts, M. D., Domke, D., Fan, D. P., & Fibison, M. (1999). News coverage, economic cues, and the public's presidential preferences, 1984–1996. *The Journal of Politics*, 61(4), 914–943. doi:10.2307/2647548
- Sheafer, T. (2008). The media and economic voting in Israel. *International Journal of Public Opinion Research*, 20(1), 33–51. doi:10.1093/ijpor/edno04
- Soroka, S. N. (2006). Good news and bad news: Asymmetric responses to economic information. *The Journal of Politics*, 68(2), 372–385. doi:10.1111/j.1468-2508.2006.00413.x

- Soroka, S. N. (2012). The gatekeeping function: Distributions of information in media and the real world. *The Journal of Politics*, 74(2), 514–528. doi:10.1017/S002238161100171X
- Strömbäck, J., Djerf-Pierre, M., & Shehata, A. (2016). A question of time? A longitudinal analysis of the relationship between news media consumption and political trust. *The International Journal of Press/Politics*, 21(1), 88–110. doi:10.1177/1940161215613059
- Svensson, H. M., Albæk, E., van Dalen, A., & de Vreese, C. H. (2017). Good news in bad news: How negativity enhances economic efficacy. *International Journal of Communication*, 11, 1431–1447.
- Thelwall, M., Buckley, K., & Paltoglou, G. (2012). Sentiment strength detection for the social web. *Journal of the American Society for Information Science and Technology*, 63(1), 163–173. doi:10.1002/asi.21662
- van Dalen, A., de Vreese, C., & Albæk, E. (2017). Economic news through the magnifying glass: How the media cover economic boom and bust. *Journalism Studies*, 18(7), 890–909. doi:10.1080/1461670X.2015.1089183
- van Dalen, A., Svensson, H., Kalogeropoulos, A., Albæk, E., & de Vreese, C. H. (2018). *Economic news: informing the inattentive audience*. London; New York: Routledge.
- van der Meer, T. W. G. (2017). Economic performance and political trust. In E. M. Uslander (Ed.), *The Oxford handbook of social and political trust*. (Vol. 1) (pp. 1–19). Oxford: Oxford University Press. doi:10.1093/oxfordhb/9780190274801.013.16
- van der Meer, T. W. G., & Dekker, P. (2011). Trustworthy states, trusting citizens? A multi-level study into objective and subjective determinants of political trust. In S. Zmerli, & M. Hooghe (Eds.), *Political trust: Why context matters* (pp. 95–116). Colchester: ECPR Press.
- van der Meer, T. W. G., & Hakhverdian, A. (2017). Political trust as the evaluation of process and performance: A cross-national study of 42 European countries. *Political Studies*, 65(1), 81–102. doi:10.1177/0032321715607514
- Wickham, H. (2016). *ggplot2: Elegant graphics for data analysis*. New York: Springer.
- Wojcieszak, M., Azrout, R., & de Vreese, C. (2018). Waving the red cloth. *Public Opinion Quarterly*, 82(1), 87–109. doi:10.1093/poq/nfx040

Biographical Notes

Anna Brosius is a PhD candidate at the Amsterdam School for Communication Research.

Erika J. van Elsas is a postdoctoral researcher at the Amsterdam School for Communication Research.

Claes H. de Vreese is a professor of Political Communication at the Amsterdam School for Communication Research.