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Parliamentary Questions, Newspaper Coverage, and Consumer Confidence in Times of Crisis: A Cross-National Comparison

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This article investigates the interactions among parliamentary questions, newspaper coverage on the economic crisis, and consumer confidence. It focuses on France, Spain, Germany, and the Netherlands for the period 2005–2016. Based on insights from political agenda-setting and media effects research, we expect multidirectional relationships to be present. Parliamentary records and newspaper archives are used to analyze the monthly amount of attention for the economic crisis. Pooled time series models and vector autoregression analyses are employed to demonstrate that indeed, politicians, journalists, and citizens depend on one another, but also that remarkable cross-national and over-time differences exist. In the countries where the economy was severely damaged by the crisis (France and Spain), news coverage is less strongly affecting both parliamentarians and citizens. However, when the economic situation worsens, political agenda-setting influences get stronger, while media effects on consumer confidence become weaker over time.

KEYWORDS Economic crisis, political agenda setting, media effects, time series analysis, comparative research

The interactions among politics, media, and the public has been central in much agenda-setting research (Soroka, 2002). Studies try to understand why those key actors in democratic societies devote attention to and worry about specific issues, while neglecting others. While we already know a lot about how those different actors have an impact on one another, existing research falls short in several respects. First, a substantial amount of the scholarship focuses only on two of the three actors, as, for example, in political agenda-setting research that examines media and politics (e.g., Walgrave & Van Aelst, 2006) and public agenda-setting research that looks into media and public salience (e.g., Hopmann, Vliegenthart, de Vreese, & Albæk, 2010). Second,

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most research focuses on one-directional relationships, often with media as the key independent variable. Soroka (2002) provides a notable exception to this pattern by testing agenda-setting hypotheses in a dynamic, multidirectional framework including politics, media, and the public in Canada. More recently, Olds (2013) applies a similar framework to the U.S. context, investigating the agenda-setting power of presidential attention to a number of economic issues. However, as valuable as these studies are, they largely neglect the potential impact of context. This relates to the final shortcoming in existing research on politics, media, and the public: cross-national research is relatively scarce and we know little about how effects are moderated by context characteristics. Given the fact that interactions among politics, media, and the public are likely to be *multiple, multidirectional*, and *context-dependent*, this article takes a comprehensive approach, focusing on *all* interactions among politics, media, and the public in four Western European countries and in particular addressing the question of how media effects on politics and public differ across those countries. More specifically, we look at attention for the economic crisis in parliament and newspapers in Spain, France, Germany, and the Netherlands, and consider consumer confidence as a measure of general public concern with the state of the economy.

The financial crisis peaked in 2007–2008 and was followed by the Euro Crisis in the subsequent years. While especially Southern European countries suffered to large degrees from the crisis, with high levels of unemployment, collapsing housing markets, and quickly increasing budget deficits, countries such as Germany continued to perform relatively well in economic terms. The time period that is investigated ranges from 2005–2016, thus spanning the years before the actual height of the crisis, as well as the years thereafter, which at least for some of the countries meant a time of relative economic prosperity.

Theoretical Framework

Politics, media, and the public are considered crucial to the functioning of democracies. In mediatized societies, media are the most important source of information about politics and political decision-making processes (e.g., de Vreese, 2010; Hopmann et al., 2010). Also for politicians and policymakers, media offer essential information about which issues are important, as well as more evaluative connotations of those issues and frames of interpretation (de Vreese & Boomgaarden, 2003; Vliegenthart & Roggeband, 2007). Interactions among politics, media, and the public have been investigated frequently— both the communicative processes that underlie possible effects at the individual level, as well as in aggregate-level designs. The latter demonstrate that the interaction between media and politics is largely a contingent process that depends on topic, context, and specific actors involved (Walgrave & Van Aelst, 2006). On the one hand, political agenda-setting research shows that in general terms politics follows the media more strongly than the other way around (e.g., Soroka, 2002; Vliegenthart et al., 2016). On the other hand, focusing on specific events, the "indexing hypothesis" (Bennett, 1990) predicts that media follow politics by tying their story frames to the range of viewpoints and sources within official decision circles, thereby echoing dominant perspectives put forward by elite political actors (Bennett, Lawrence, & Livingston, 2006). The interaction between media attention and public attention is most often considered in terms of agenda-setting effects: when media attention for an issue goes up, so does public attention, or concern (McLaren, Boomgaarden, & Vliegenthart, 2017). It is tentatively argued that media effects are even stronger in situations of uncertainty or crisis (Hollanders & Vliegenthart, 2011). Gatekeeping literature shows how the distribution of information in the media tends to differ from the distribution of information in the real world (Soroka, 2012), which means

that the media might have an effect on public opinion above and beyond the impact of the real world they report about. At the same time, research on the dynamic representation of government indicates a direct relation between politics and the public (Hakhverdian, 2010), adding to the complexity of the conceptual framework.

Given these findings, it can be anticipated that relationships among politics, media, and the public exist. In this article, we investigate the interactions among parliamentary questions about the economic crisis, media attention for the economic crisis, and consumer confidence in a cross-national perspective. We are particularly interested in the extent to which the political-economic context as well as over-time dynamics, and more in particular the severity of the economic crisis, moderate media effects on both the public and the political agenda.

Media and Politics

The interaction between media and politics is key to political agenda-setting research. The impact of media attention for certain political issues on the amount of attention paid to those issues by parliament is well-documented (e.g., Soroka, 2002; Walgrave, Soroka, & Nuytemans, 2008). Studies drawing on data derived from surveys/interviews with members of parliament (MPs) confirm the importance and relevance of mediatized information (Davis, 2007; Herbst, 1998; Van Aelst & Walgrave, 2011; Vliegenthart, Walgrave, & Zicha, 2013; Walgrave, 2008). Political actors rely on media sources for several reasons; they learn about societal issues (Vliegenthart et al., 2013), the perspectives of the public (Herbst, 1998), and other elites' action programs (Davis, 2007). As such, the media form an indispensable source of information.

While the "indexing hypothesis" points to the reversed relationship in which the media follow politics in the framing of events (Bennett, 1990), only few studies look into this relationship with regard to issue attention (Kleinnijenhuis, 2003; Kleinnijenhuis & Rietberg, 1995). Kleinnijenhuis and Rietberg (1995) find that the media follow politics in the amount of attention devoted to economic issues, supporting the idea of "top down agenda-setting" (Kleinnijenhuis & Rietberg, 1995, p. 95), which is confirmed by a later study by Kleinnijenhuis (2003). Here, it is important to note that their findings rely on data from relatively long ago. Given the perceived increase in media importance for current societies and politics, as, for example, outlined in the mediatization theory (Esser & Strömbäck, 2014), it is not surprising that either the focus of other studies have been on the effect of media on politics, or only found more limited evidence for the reversed relationship.

More recently, Vliegenthart and colleagues (2016) investigated both causal directions by focusing on the interactions between issue attention in parliament and the media. They rely on a longitudinal, comparative design in which the interrelationship between parliament and media is investigated for seven different European countries. The media, indeed, lead politics more than the other way around—an effect stronger for parties in opposition than in government—and this effect is contingent upon the political system of a country (Vliegenthart et al., 2016, p. 295). While our study does deal with a specific type of economic attention, namely negatively valenced, there is no reason to expect that agenda-setting dynamics do not apply here (see also Vliegenthart & Mena Montes, 2014).

Media and Consumer Confidence

A vast body of research shows how economic news is central to the formation of economic perceptions among the public (De Boef & Kellstedt, 2004; Goidel, Procopio, Terrell, & Wu, 2010; Hetherington, 1996; Soroka, 2014; Soroka, Stecula, & Wlezien, 2015). As a measure combining sociotropic and egotropic economic evaluations, consumer confidence

captures people's view of the economy in a rather complete way. Blood and Phillips (1995, 1997) are among the first to show how economic news shapes consumer confidence over time, above and beyond the impact of real economic conditions. Many other studies find similar economic news effects, within and outside the U.S. context (e.g., Alsem, Brakman, Hoogduin, & Kuper, 2008; Boomgaarden, Van Spanje, Vliegenthart, & de Vreese, 2011; Doms & Morin, 2004; Goidel & Langley, 1995; Hollanders & Vliegenthart, 2011; Wu, Stevenson, Chen, & Güner, 2002).

This impact of economic news is strongest when the news is bad. A substantial amount of the research in this field looks at the effects of inherently negative economic news coverage, often operationalized as the monthly number of recession headlines (e.g., Blood & Phillips, 1995; Doms & Morin, 2004; Hollanders & Vliegenthart, 2011). We build on this tradition by adopting a salience-based measure of valence but now directed toward the volumes of *crisis*-related news coverage. In such an approach, two central content characteristics underlying news effects in communication research are combined: visibility and tone effects (Hopmann et al., 2010). We expect that the amount of media attention devoted to the economic crisis will lead to higher levels of public awareness of the crisis situation and, consequently, to lower levels of public economic confidence (for a similar argument, see Hollanders & Vliegenthart, 2011; Zhang, 2016).

Research in which tonality is operationalized separately shows that the volume of economic news affects people's economic perceptions through the (negative) tone of the content (Damstra & Boukes, 2018). In other words: the number of economic news items lead to pessimism but only when the news is bad. In addition, this type of research points to asymmetric public responsiveness. Negative economic news leads to more pessimistic economic perceptions, whereas positive economic news does not provoke the equivalent counter-effect (e.g., Damstra & Boukes, 2018; Soroka, 2006). To explain the public's sensitivity toward negative economic information, behavioral economists point to a psychological process known as the negativity effect. People are loss-aversive and let negative information outweigh comparable positive information in the formation of judgments (Ahluwalia, 2002; Tversky & Kahneman, 1973, 1975). Based on all this, we expect that negative economic information, such as crisis-related news coverage, has a profound impact on the confidence people have in the economy.

Some studies suggest reversed causality: public economic perceptions leading the media (e.g., Kleinnijenhuis & Rietberg, 1995; Soroka et al., 2015; Wu et al., 2002). This relationship is explained by pointing to commercial motives driving the business of news reporting. To serve their audience, journalists aim to reflect concerns among the public as accurately as possible, which can—in broader terms—be understood as a specific form of bottom-up agenda-setting (Kleinnijenhuis & Rietberg, 1995). In particular, for the case of consumer confidence, one might anticipate such a reversed relationship, as it is an easily available and widely known measure of public sentiment.

Politics and Consumer Confidence

There is a vast literature on the correspondence between policy behavior and public opinion. Research on dynamic representation shows how political actors are responsive to changes in public opinion with regard to their policy positions, often measured in terms of government expenditure (Hakhverdian, 2010; Stimson, MacKuen, & Erikson, 1995). Another strand in the literature argues that political competition is not so much about competing ideological positions, but more about emphasizing certain issues over others (Hobolt & Klemmensen, 2008; Petrocik, 1996). From this perspective, responsiveness to

public opinion is not about shifting policy positions and different allocations of budget but more about the *prioritization* of issues. Making those issues salient that are most important to the public is a distinct way for political actors to address concerns among the electorate and act responsive. Most research has focused on the responsiveness of government, which makes sense in a two-party system context (e.g., Hakhverdian, 2010; Hobolt & Klemmensen, 2008; Soroka & Wlezien, 2005; Stimson et al., 1995). However, to address political responsiveness in a multiparty system context, we choose to focus on parliament, as this arena leaves ample room for political actors to respond to public concerns by asking parliamentary questions.

For the opposite direction, not much research looks into the direct effect of parliamentary behavior on public opinion. However, the literature does provide some clues that this relationship might actually be present. Jones and Baumgartner (2005) point to the agenda-setting power of the U.S. President. By paying attention to certain issues at the expense of other issues, the incumbent is capable of setting the systemic agenda—that is, affecting the issues deemed important by a majority of the people (Kernell, 2006; Olds, 2013). When these issues are inherently negative, as is the case in the current study's design, higher levels of parliamentary attention carry the potential of *shifting* public attitudes. As a salience-based measure of valence, more parliamentary attention to the economic crisis might lead to higher levels of public economic concern, which might be translated into lower levels of economic confidence. Therefore, we also examine the impact of parliamentary questions on levels of consumer confidence, which is in line with our aim to offer a complete overview of the complex interrelationships among politics, media, and the public. The first overarching research question (RQ) that is addressed thus is the following:

RQ1: How do parliamentary questions on the economic crisis, crisis coverage in newspapers, and consumer confidence influence one another?

The second aim of this study is examining whether and to what extent media effects are moderated by the severity of the economic crisis. In our cross-national design, we operationalize crisis in the first place as a cross-sectional *context* variable, by making a distinction between those countries that were hit hard by the crisis (France, Spain) and those that suffered to a lesser extent (Germany, the Netherlands). In addition, to capture the moderating role of the crisis as thoroughly as possible, we also anticipate dynamic *over-time* interaction effects: When economic circumstances deteriorate (or improve), media effects on parliamentary behavior and on economic confidence might change as well.

With regard to *political* agenda-setting processes, we know relatively little about the moderating impact of the context in which media effects take place. A recent study by Vliegenthart and colleagues (2016) indicates that media effects on political action by opposition and government parties are contingent upon the institutional context of countries (single- versus multiparty government). They find that opposition parties are more responsive to media attention when they face a single-party government, while government parties are more susceptible to media influences in a multiparty system. The overall political agenda-setting power of media, however, is not different in countries with single- and multiparty governments. We build on this study by examining the moderating impact of national-level contexts on general political agenda-setting effects (i.e., not distinguishing between government and opposition parties). More than by political system variation, we anticipate media effects to be moderated by the severity of the crisis on a national level, thus to be different in Spain and France compared to Germany and the Netherlands.

However, there is too little empirical research to base directional hypotheses on. Argumentation can go in two directions: on the one hand effects in crisis contexts might be *weaker*, because politicians do not need the media to inform them that the economy is an issue of major concern that requires political action. On the other hand, effects might be *stronger* in countries that face a severe crisis, since parliamentarians are aware of the economy being a key concern and are primed to carefully monitor incoming information (from the media) on that issue and to respond swiftly. The latter argumentation seems to be in line with the findings of Vliegenthart and Mena Montes (2014), which show in a comparative study that overall political agenda-setting effects are present in Spain, but not in the Netherlands.

In addition, *over-time* variation in crisis severity may also have a moderating impact on political agenda-setting dynamics, making members of parliament less or more susceptible to what the media write about the crisis. Similar to the argumentation just discussed, over-time media effects may become weaker when the economy worsens because the economic issue becomes more obtrusive (Zucker, 1978). Under these circumstances, members of parliament do not need crisis coverage in order to get activated because there are many more (real-life) cues available to them. On the other hand, as representatives of the people being judged at the next elections, members of parliament might also become *more* responsive to media coverage in times of heightened uncertainty to show they are responsive to changes in the (economic) context. Again, empirical evidence on which to builddirectional hypotheses is lacking; therefore, we formulate a second research question:

RQ2: How is the effect of crisis coverage on parliamentary questions moderated by the crisis itself, in terms of the severity of the crisis as a context characteristic and in terms of economic change over time?

A number of studies investigate whether and to what extent economic news effects on public opinion are moderated by real economic circumstances (Damstra & Boukes, 2018; Doms & Morin, 2004; Goidel & Langley, 1995; Wu et al., 2002). However, since no cross-national research exists in this regard, all studies operationalize economic circumstances (or "crisis") in terms of over-time change and not as country-level variation. Results are rather mixed. First, there is some evidence that economic news effects are strongest in times of crisis (e.g., Doms & Morin, 2004; Wu et al., 2002; but see Damstra & Boukes, 2018). Under detrimental economic conditions, people would be more willing to regularly update their economic expectations because (a) there is more economic news in times of crisis, making it easier for people to acquire information, and (b) under these circumstances, economic news is seemingly more relevant to people's own financial future, with headlines such as "Recession possible" (Doms & Morin, 2004, p. 2; Wu et al., 2002). Second, and in contrast to what we just discussed, the agenda-setting literature suggests that media effects and issue obtrusiveness are correlated *negatively* (e.g., Iyengar, Peters, & Kinder, 1982; Tan & Weaver, 2007). Applied to the economic crisis, this would suggest that economic news effects are *weakest* when the economy goes down. It is under these circumstances that the issue is most obtrusive to people, in terms of tangible consequences such as bankruptcies and job losses, and, as a result, they do not need the media (or any other official source) to tell them it is going bad. Building on these contradicting ideas, we formulate our third and final research question:
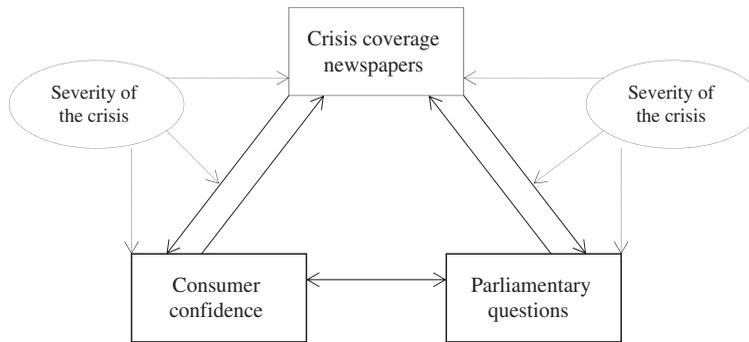
Figure 1. Conceptual framework.

RQ3: How is the effect of crisis coverage on consumer confidence moderated by the crisis itself, in terms of the severity of the crisis as a context characteristic and in terms of economic change over time?

Apart from the moderating role of the crisis, we also expect the crisis to have a *direct* effect on politics, media, and the public (see Figure 1). More specifically, we expect members of parliament to ask more questions, journalists to write more articles, and consumer confidence to go down when the crisis is more severe. However, the direct impact of the severity of the crisis is not the main focus of this study and will therefore not be discussed at length.

Data

Operationalization

The research questions are answered using aggregate-level, monthly data from four Western European countries (Spain, France, the Netherlands, and Germany) for the period 2005–2016 (mid-2006 for Spain due to data availability). This period covers the years preceding the 2008 economic crisis, the crisis period itself, as well as the aftermath and recovery. Countries differ considerably in terms of the (perceived) level of crisis, with Spain and to a lesser extent France being hit hard, while the consequences in Germany, and also in the Netherlands, have been less severe.[1] We can see those differences reflected in both consumer confidence levels, which are systematically lower in France and Spain compared to Germany and the Netherlands (see Table 1), while (seasonally adjusted) unemployment rates are higher in France and Spain (averages of 9.3% and 19.0% in the period under investigation) than in Germany and the Netherlands (6.8% and 5.5%, respectively). The variables included in the analyses are as follow.

Consumer Confidence

Data are retrieved from the European Commission, directorate of Financial and Economic Affairs. In all European Union (EU) countries, representative samples of the national

Table 1.

Descriptive statistics.

Variable	FR	GER	ES	NL
Parliamentary questions	37.11 (43.53)	2.53 (2.61)	0.87 (1.70)	4.58 (5.55)
Media attention	88.81 (53.20)	207.06 (200.90)	316.16 (194.05)	104.00 (90.65)
Consumer confidence	−19.04 (7.49)	−4.83 (9.18)	−17.95 (12.32)	−2.03 (12.50)
Change in unemployment	.008 (.089)	−.048 (.081)	.082 (.284)	−.003 (.107)
Stock market (standardized)	0 (1)	0 (1)	0 (1)	0 (1)

Note. FR = France; GER = Germany; ES = Spain; NL = Netherlands. $N = 144$ (for Spain 126).

population are questioned to measure consumer confidence every month. In the used indicator, the following four questions are included:

1. How do you expect the financial position of your household to change over the next 12 months?
2. How do you expect the general economic situation in this country to develop over the next 12 months?
3. How do you expect the number of people unemployed in this country to change over the next 12 months?
4. Over the next 12 months, how likely is it that you save any money?

Questions are answered on a five-point scale. The composite measure is the arithmetic average of the balances (in percentage points) of the answers to those questions, with the unemployment question being reversely coded (European Commission, 2017).

Parliamentary Attention

We used the search engines of parliamentary archives to capture attention for the economic crisis in parliamentary questions.[2] To obtain the monthly number of questions per country, we used search terms that have been used and tested in previous studies (e.g., Hollanders & Vliegenthart, 2011) and are extended to cover the specific elements of the economic crisis that started in 2008 (Damstra & Vliegenthart, 2016).[3] In all countries, we collected both oral and written questions. While the sheer quantity of monthly questions differs considerably across countries as well as formal regulations, the institutional function is comparable: in all countries, parliamentary questions offer the opportunity to request information, but are also a tool to send signals to different actors, including media and citizens (Russo & Wiberg, 2010).

Media Attention

LexisNexis was used to collect the monthly number of articles that discusses the economic crisis in one national newspaper for each country (*El País* for Spain, *Le Figaro* for France, *die Welt* for Germany, and *NRC Handelsblad* for the Netherlands). Previous research has

suggested that while overall levels of coverage might differ across outlets in one country, aggregate-level trends are highly similar and correlations between outlets on a monthly level are usually very high (Hollanders & Vliegenthart, 2011). We use the same search string for newspapers as for the parliamentary data.

A relevant question is to what extent our crisis attention measure differs from a broader economic attention measure. After all, part of our theoretical expectations is valence-based, where we anticipate that more attention for the negative crisis phenomenon will yield certain (pronounced) media effects. Moreover, one might expect that in the severe crisis countries (France and Spain) *all* coverage on the economy is negative and thus a very high correlation between general economic attention and crisis attention exists, explaining cross-country variation. For each country, we also collected the monthly media attention for the general economy, relying on a slightly simplified version of the search string developed by Damstra and Boukes (2018).[4] In each country this general attention measure correlates positively with the crisis attention measure (for Germany $r = .35$, for France $r = .12$, for Spain $r = .68$, for the Netherlands $r = .50$). While substantial differences across countries exist, it is clear that the crisis attention measure is inherently different from the general economic attention measure and that the degree of difference does not systematically depend upon the severity of the crisis: the countries that faced the most severe crisis yield both the lowest (France) and highest (Spain) correlation between the two series.

Changes in Unemployment Rates

We control for real-world developments by including the monthly change in unemployment rates. We use seasonally adjusted scores, because these rates correct for the presence of seasonal employment, and thus provide a more realistic assessment of the economic situation. This indicator serves as a proxy for the direction the economy is heading and might affect consumers' assessment of the economy, as well as the attention journalists and parliamentarians devote to the economic crisis. Data are collected from the European Union statistical office Eurostat (http://ec.europa.eu/eurostat).

Stock Market Ratings

We use the monthly end scores of the stock markets in the four countries (situated in Paris, Frankfurt, Madrid, and Amsterdam) as a second, more volatile indicator of the current economic situation. Data are collected from Yahoo Finance (http://finance.yahoo.com) and standardized on a country level to make scores and effects comparable across countries.

Descriptive statistics can be found in Table 1. As is clear, the overall level of consumer confidence is considerably lower in Spain and France compared to Germany and the Netherlands. In addition, substantial cross-national variation exists in newspaper and parliamentary attention in absolute terms, but we refrain from making too much from those differences—they might be related to different newspaper sizes and differential use of parliamentary questions. Standard deviations suggest that indeed considerable over-time variation in each of the variables exists.

Analyses

The focus in the analyses will be on over-time differences in all key variables and how these series affect one another. We provide a structural comparison of patterns across countries (RQ1), with a special eye on the differences in media effects on parliament and

consumer confidence between those countries that got more severely hit by the crisis and those that were affected to a lesser extent, as well as the over-time moderation of crisis severity as reflected in real world indicators (RQ2 and RQ3). In statistical terms, the three variables of substantial interest are strongly autoregressive (the current value depends heavily on the previous one), but Dickey-Fuller tests suggest that each of them is stationary, which means that it is not necessary to difference them before continuing with the analyses.[5]

We conduct three different analyses to get a hold of the general interactions that exist among parliament, media, and consumer confidence, as well as the specific patterns for individual countries. First, we conduct a pooled time series analysis, in which we use separate models that include each of the variables as the dependent variable. We control for autoregression by including a lagged dependent variable. Also, the independent variables are lagged. To account for unit (country)-level heterogeneity, country-level dummies are included (fixed effects). This means that we control for absolute differences in the dependent variable, which might be caused by structural reasons that are not captured by the independent variables in our models. Since considerable variation in numbers of questions exists across countries—likely to be the consequence of parliamentary functioning rather than being related to the amount of political attention for the economic crisis—we use parliamentary questions standardized per country for the pooled analyses. For similar reasons, we do the same for media attention. In this way, all cross-national variation is removed from the model. Consequently, we focus on intracountry, over-time variation. Thus, we use separate models to estimate effects on each of the three variables of interest. Simultaneous models face considerable limitations in terms of dealing with the pooled and temporal ordering of the data set. We reestimated the main effects models presented in the results section using a pooled vector autoregression analysis with least squares dummy variables in Stata (xtvar; see Glogowsky & Cagala, 2014). This procedure does not allow for the inclusion of control variables. The best-fitting model is one with two lags. This model yields substantially similar results as the ones presented in the results section. A more elaborate discussion of the results can be found in supplemental Appendix A.

Second, vector autoregressive models (VAR) are used for each of the countries separately. In line with our theoretical reasoning, this approach treats all main variables in the system to be endogenous—that is, possibly affected by other variables. VAR models estimate for each of the main variables a similar model that includes the same number of lagged values of both the dependent, as well as the independent variables. The appropriate number of lags to be included in each analysis is established based on a model comparison and accompanying fit statistics, most notably the Akaike information criterion (see e.g. Vliegenthart, 2014). The (exploratory) nature of vector autoregression makes the lag selection (within certain boundaries) an empirical one. It might be interesting to explore different lag lengths for different countries from a more substantial point of view (in some contexts effects might, for example, be more delayed), but that goes beyond the scope of this article. A detailed inspection of the results of the different VAR analyses does show that most effects take place at short time intervals (lag of 1), further legitimizing our choice of single-lagged variables in the pooled models. We allow a maximum number of four lags, because it seems reasonable that influences among media, parliament, and consumer confidence take place within this time frame (see also Vliegenthart & Mena Montes, 2014). VAR analyses are based on ordinary least squares (OLS) estimations, making it robust against moderate violations of normality—as present especially in the parliamentary data due to relative low means. While the results of a VAR analysis resemble those of a set

of OLS regressions, individual coefficients should be interpreted with caution because of possible presence of multicollinearity, especially due to possible high correlations between lags of the same variable. Instead, several other indicators provide useful information and help to evaluate the results. Central to the interpretation of the results is the notion of Granger causality. Variable x is argued to Granger-cause variable y if the prediction for y based on its own past is improving when adding x's past to the equation. It thus indicates whether x exerts a significant influence on y. It does not tell much, however, about the direction and strength of this influence. Therefore, the impulse response function (IRF) is also considered. This helps to acquire insights into the consequences of a shock (impulse) in one variable at time 0 on the following values of the other variables. In the Results section, we present a summary of the findings of the country-level VAR analyses. More detailed information can be found in supplemental Appendix B.

Third, to systematically test the moderation of crisis (both as a context feature as well as over time), we extend the pooled models with interactions between media attention and a crisis severity dummy (scoring "1" for Spain and France, and "0" for Germany and the Netherlands), as well as an interaction between media attention and changes in unemployment.

Results

Before looking into causal relationships, Table 2 presents the contemporaneous correlations between parliamentary questions, newspaper coverage, consumer confidence, changes in unemployment, as well as stock market ratings. Correlations between the various variables are substantial and in the expected directions. Media attention and consumer confidence are strongly and negatively correlated, as would be expected. Also, parliamentary questions and consumer confidence have a similar negative correlation. Parliamentary questions and media attention are correlated positively, and even substantially so ($r = .57$). Increases in unemployment rates correlate with the three main variables as we would expect: increasing unemployment rates coincide with more parliamentary questions and more media attention, and with lower levels of consumer confidence. In addition, the stock market series correlates with the other series as we would expect: higher ratings coincide with less negative attention in parliament and newspapers and with higher levels of consumer confidence.

Table 3 presents the pooled fixed effects models and provides an answer to the first research question of this article. Indeed, multiple relationships exist and findings are largely in line with our theoretical expectations. First, more media attention for the economic crisis leads to more parliamentary attention about the crisis in the next month. This political agenda-setting effect is highly significant. Consumer confidence has no direct effect on parliament. Changes in unemployment rates do exert a significant influence, with increases in unemployment yielding more parliamentary questions. The effect of stock market ratings is in the direction one would expect, yet does not reach the level of statistical significance. In general, parliamentarians are thus found to be responsive to incoming signals about the state of the economy, both the mediated (via newspapers) as well as the unmediated (changing unemployment rates) ones.

Second, consumer confidence does not affect media coverage, indicating that journalists also are not directly responsive to the general public. Also, parliamentary attention does not have a significant impact. Thus, much in line with recent agenda-setting findings (Vliegenthart et al., 2016), the influence of the media agenda on the parliamentary agenda is stronger than the other way around. Both real-world indicators do have a significant

Table 2.

Correlations among parliament, media, and consumer confidence.

Variable	Parliamentary Questions	Media Attention	Consumer Confidence	Change in Unemployment
Parliamentary questions	1.00			
Media attention	.570	1.00		
Consumer confidence	−.395	−.455	1.00	
Change in unemployment	.395	.407	−.583	1.00
Stock market	−.446	−.589	.469	−.243

Note. Parliamentary questions, media attention, and stock market are standardized at the country level. $N = 554$.

influence, with increasing unemployment rates resulting in more negative newspaper coverage and higher stock market ratings yielding less negative coverage. Thus, journalists seem to be responsive to indicators of the state of the economy, rather than by perceptions of the public or parliamentary responses.

Third, we see that economic crisis news decreases consumer confidence. However, parliamentary attention to the crisis is actually increasing confidence. Apparently, the public is responsive to incoming signals, but reacts differently to the sources of those signals: if politicians start devoting attention to detrimental economic circumstances, citizens respond (slightly) relieved, while newspaper coverage increases their anxiety. Again, real-world indicators also exert an impact, with rising unemployment rates resulting in lower levels of consumer confidence and higher stock market ratings resulting in higher levels of confidence.

We see that the explained variance differs considerably across the three variables. The reason for this mainly lies in the size of the autoregressive parameter. We see that for both media attention and consumer confidence, this coefficient is around .9, indicating that the previous month's score is a very strong predictor of the current month's score, contributing

Table 3.

Predicting parliamentary attention, media attention, and consumer confidence.

	Parliamentary Attention	Media Attention	Consumer Confidence
Parliamentary questions (t–1)	.441*** (.038)	−.014 (.026)	.654*** (.165)
Media attention (t–1)	.255*** (.042)	.792*** (.029)	−.788*** (.184)
Consumer confidence (t–1)	−.003 (.004)	.002 (.003)	.865*** (.019)
Change in unemployment (t–1)	.490* (.248)	.420* (.172)	−5.669*** (1.085)
Stock market (t–1)	−.074 (.041)	−.114*** (.028)	.521** (.179)
Constant	−.064 (.100)	.041 (.069)	−2.496*** (.439)
R-squared	.527	.770	.947

$N = 550$.

* $p < .05$. ** $p < .01$. *** $p < .001$ (country dummies included; results not displayed).

to the large *R*-squared. Parliamentary attention is more dynamic and less predictable than the other series.

Moving to the country-level analyses, Table 4 summarizes the findings for each of the four countries, focusing on the presence of Granger-causing relationships, as well as the direction of the relationships based on inspection of the impulse response functions. Here, we find that several relationships are present across *all* countries. Most notably, this is the effect of newspapers on parliament, which is positive and significant in all countries. The same is true for the effect of politics on consumer confidence—which suggests that political crisis attention results in higher levels of consumer confidence. Furthermore, we see that the effect of media coverage on consumer confidence is present in three out of four countries, with negative coverage decreasing confidence. Finally, consumer confidence does not have a (direct) effect on media or parliament in any of the countries. For all countries, we checked the residuals to determine whether any autocorrelation was present (see supplemental Appendix B for further details).

Overall, the results seem to be rather similar across countries, but the presence (and significance) of the effects does not tell much about the (differential) effect sizes. To answer RQ2 and RQ3, we turn to the final analyses. Table 5 shows how media effects depend on the crisis, conceptualized as both a contextual variable as well as a dynamic, over-time phenomenon. Results show that, indeed, the effect of media on politics depends on both crisis context as well as the over-time changes in crisis severity, but in differential ways (RQ2). The effect is *smaller* in countries that got hit hard by the crisis, but gets *larger* if the situation worsens, as reflected in changes in unemployment rates. Effects remain present when we include the interaction terms separately and interactions with stock market ratings instead of changes in unemployment rates yield similar conclusions. Figure 2 provides a graphical depiction of the predicted country-standardized parliamentary questions in different situations. It demonstrates that when unemployment decreases substantially, the political agenda-setting influence of the media dampens to zero.

Importantly, the interaction effects with unemployment are significant in the "severe crisis countries" (B = .406, $p < .01$) and not for the "non-severe crisis countries" (B = .132, $p = .437$; not in table). Thus, overall, parliamentarians in crisis countries rely less on the media as a source of information. They are likely to be well-aware of the worrying

Table 4.
Overview of national-level findings: Direction and significance of effects.

Relation	FR	GER	ES	NL
Media->Parliament	+†	+***	+**	+***
CC-> Parliament	0	0	0	0
Parliament->Media	0	–*	0†	0
CC->Media	0	0	0	0*
Parliament->CC	+*	+**	+***	+†
Media->CC	–*	–***	0	–†
Lags VAR	1	3	3	4

Notes. FR = France; Ger = Germany; ES = Spain; NL = Netherlands. Reported are significance levels of Granger causality tests and direction of effects based on cumulative impulse response functions.+ positive effect; 0 null effect; - negative effect
† $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

economic situation their country faces. But when things get (even) worse over time, their responsiveness to media content increases.

Finally, the effect of negative media coverage on consumer confidence also depends on the severity of the crisis. Here, the context and the over-time interactions point in the similar direction. In both instances, the effect of media is smaller when the crisis is more severe (although the over-time interaction is only marginally significant). These findings are in line with the idea that when the crisis is severe, the economy is most obtrusive to people, in terms of tangible consequences such as bankruptcies and job losses, and media are less needed to inform citizens. Again, results hold when interaction effects are entered separately in the equation and also interactions with stock market ratings yield similar conclusions. Figure 3 demonstrates that with hardly any economic crisis coverage the predicted consumer confidence differs around four points between severe-crisis countries and non-severe crisis countries. This difference has disappeared when negative media coverage peaks and reaches its highest levels.

Table 5.
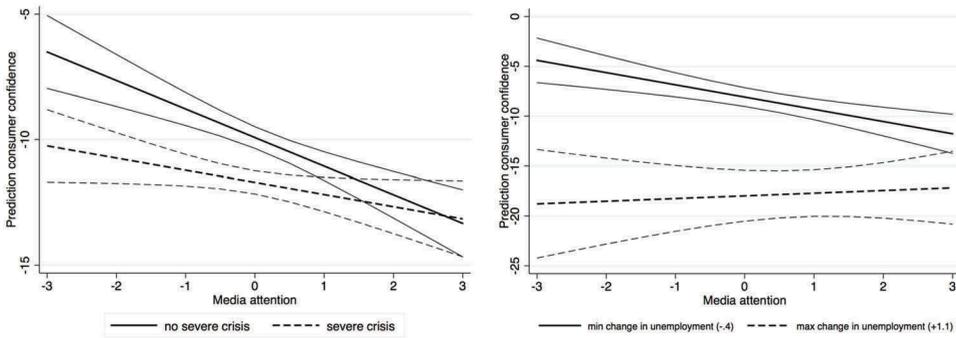The moderating impact of crisis severity on media effects.

	Parliament	Consumer Confidence
Parliamentary questions (t–1)	.422*** (.038)	.646*** (.166)
Media attention (t–1)	.314*** (.051)	−1.146*** (.225)
Consumer confidence (t–1)	−.003 (.004)	.862*** (.019)
Change in unemployment (t–1)	.350 (.264)	−6.592*** (1.163)
Stock market (t–1)	−.082* (.040)	.506** (.178)
Severe crisis	−.084 (.083)	−1.781*** (.364)
Media attention (t–1)* Severe crisis	−.152* (.064)	.654* (.281)
Media attention * Change unemployment (t–1)	.350* (.135)	.998† (.595)
Constant	−.020 (.045)	−.541** (.200)
R-squared	.536	.947

Note. N = 550.
† $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.
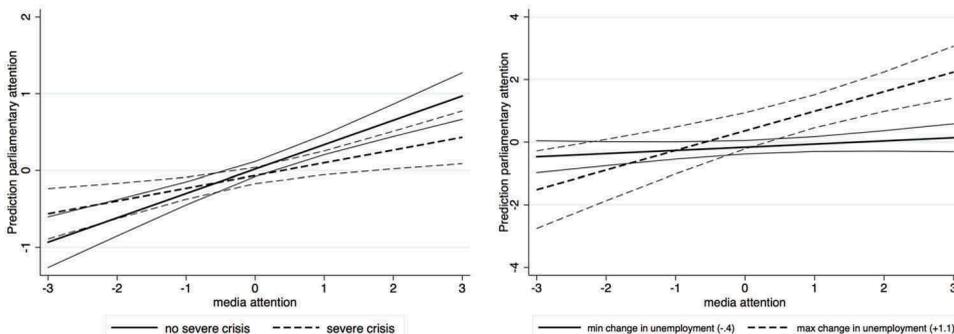
Figure 2. The moderating impact of crisis severity on media's impact on parliament.

Figure 3. The moderating impact of crisis severity on media's impact on consumer confidence .

Conclusion

In this article, we investigate the interactions among parliamentary questions, media attention on the economic crisis, and consumer confidence, with a specific interest in how media effects differ across countries that witnessed different levels of economic crises, as well as at different over-time levels of the crisis. The analyses confirm many of the findings we know from political agenda-setting and media effects research. Most notably, media have a strong impact on parliament, and in many instances also influence consumer confidence, above and beyond the effects of real-world economic developments.

However, if we try to disentangle those effects in more detail, we see that they are context dependent; clear differences exist between France and Spain on the one hand, and Germany and the Netherlands on the other. In the Southern European countries we find that media effects on both politics and citizens are less strong. In the countries that performed relatively well in economic terns, the media are in the driver's seat. More economic crisis news coverage makes citizens more depressed and leads parliamentarians to ask more parliamentary questions, while no direct responsiveness toward the public is found on the political or the media level. Thus, in contexts where the crisis is "very real in all its consequences," as one can argue for the Southern European countries, media play a subordinate role, while in situations where the crisis is less obtrusive and experienced to a lesser extent directly, the media serve as key informants. These findings are in line with those of Damstra and Boukes (2018), who demonstrate that media effects are especially prevalent for those economic judgments that are not within the realm of direct experience. At first sight they differ from those of Vliegenthart and Mena Montes (2014), who do find stronger political agenda-setting effects in Spain compared to the Netherlands. This might well be a consequence of a different setup of the study: Vliegenthart and Mena Montes foremost use a more limited time frame. They look at a shorter period that does not include the aftermath of the crisis. As our over-time analyses show, it is especially during the height of the crisis that politicians follow media in countries such as Spain, thus providing an overestimation of the overall political agenda-setting effect in this country. In addition, the focus (solely on media-politics interactions, taking a more limited set of parliamentary questions into account, and not looking at the public at all) of the Vliegenthart and Mena Montes study is more limited.

As said, if the situation in crisis-countries worsens, politicians become more responsive to media, especially in countries that face a severe crisis. Politicians do not need the media to tell them things are bad, but when the situation worsens even further, they feel forced to be more responsive. For citizens in those countries, such further economic downturn strengthens the obtrusiveness of the economic issue and makes them rely less on the media when making their assessment of the economic situation.

With this article, we answer the call for studying political information effects in a comparative (cross-national) perspective. As Walgrave and Van Aelst (2017, p. 275) correctly argue in an edited volume on the use of media by political actors, "[…] studies that deal with the relationship between media and politics at the elite level are seldom truly comparative." This study is, but there is still more work to do. While crisis severity seems to be an important country characteristic and one that works well in unraveling variation in media effects on both politics and public, a whole range of different other (country) characteristics might matter as well. A recent study by Vliegenthart and colleagues (2016) shows, for example, that political agenda-setting effects depend on the institutional context. More specifically, they find different media effects in single-party governments compared to multiparty governments, in terms of which members of parliament respond strongest to incoming media signals. Taking this type of institutional characteristics into account requires an extension of the countries included in the analyses to avoid the "too few cases, too many variables" problem. The present study provides appealing evidence that context matters and that this is well worth investigating further.

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Supplemental Material

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Notes

1. Those countries also differ on other characteristics, including, for example, the single versus multiparty government distinction. As Vliegenthart and colleagues (2016) show, this distinction does not affect the overall political agenda-setting effect of media and that political agenda-setting effects are absent in France. However, their study differs in several important aspects from ours: they focus for France solely on oral questions, and on a wide variety of major topics, without taking public attention and real-world cues into account. And indeed, in our analyses political agenda-setting effects are present in France (but less strong than in Germany and the Netherlands).

2. For France: http://www2.assemblee-nationale.fr/recherche/questions; for Spain: congreso.es; for Germany: https://www.bundestag.de/dokumente; for the Netherlands: officielebekendmakingen.nl.

3. The English-language search term reads: *recession* OR *economic crisis* OR *shrinking economy* OR *economic downturn* OR *economic fall* OR *financial crisis* OR *Euro crisis* OR *banking crisis* OR *credit crisis*. For other languages, literal translations are used.

4. Translations for each country of the following search string: HEADLINE((stock market) OR (housing price) OR (housing market) OR (econom!) OR (financial) OR (budget cuts) OR (dismissals) OR (vacancies) OR (employee!) OR (interest rate) OR (oil price) OR (mortgage) OR (debts) OR (employer!) OR mass dismissal OR (employment) OR (unemployment) OR (inflation) OR (deflation) OR (recession)).

5. We conducted pooled augmented Dickey-Fuller tests (Fisher test) with four lags for each of the variables, each of them leading to the rejection of the null hypothesis of non-stationarity. For parliament: $Z = -1.90$ ($p < .05$), for media: $Z = -1.72$ ($p < .05$), for consumer confidence: $Z = -1.75$ ($p < .05$).

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