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European transboundary crises
and EU agencies: Examining board
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Abstract

The European Union continuously faces crises on a continental scale, such as the 1996 and 2000 “mad cow disease” crises, the 2008 financial crisis, or the 2015 refugee crisis. Within this context, institutions including some European Union agencies (EAs) have emerged as repositories of plausible mechanisms for potentially reacting to such transboundary crises (TBCs). Against this backdrop, this study examines the role of EA management boards—the agency decision-makers *par excellence*—in the context of TBCs as potential *loci* for contributions to crisis resolution. We assess board members’ attitudes toward two aspects of crisis management, namely decision-making and coordination, and analyze them through several independent variables. Our study seeks to understand if board members’ professional backgrounds and the institutional designs of EAs influence perceptions of these agencies’ performances in TBCs. This study is based on two original resources: a survey and a biographical database of current management board members.

Key words

European Union agencies, transboundary crises, delegation

1. INTRODUCTION

The European Union has faced and continues to face continuous crises on a continental scale, such as the 1996 and 2000 “mad cow disease” crises, the 2008 financial crisis, or the 2015 refugee crisis. From a policy approach, these experiences may help actors to rethink the integration process, identifying potential areas for improvement and drawing attention to existing coordination problems among different actors. In this context, most transboundary crises (TBCs) require EU institutions and procedures to provide responses to manage and solve these crises (Boin et al. 2014). Among other institutions, some European Union agencies (EAs) have thus emerged as repositories of plausible mechanisms for reacting to crises that may threaten different policy domains (e.g., the economy, public health, or security). For example, the technical and professional resources at EAs’ disposal mean they can create narratives and provide diagnoses that facilitate agreement among the actors involved in a given crisis, activate networks of experts across Europe, or implement emergency plans that coordinate resources from EU member states.

Against this backdrop, this study examines the role of EA management boards in the context of TBCs. Using the analytical framework proposed by Boin et al. (2015), we focus on two aspects of EAs’ capacities for developing managerial capabilities in the context of TBCs: decision-making and coordination. Our study seeks to understand if board members’ professional backgrounds and the institutional design of EAs have influenced their board members’ perceptions of the role of EAs in TBCs. On the one hand, we examine whether board members from agencies with a clear mandate around risk assessment or management show different perceptions than those from agencies that do not have these characteristics. We undertake a similar comparison between board members from regulatory agencies versus nonregulatory ones. We expect to find more support for involvement in agencies whose mandates include risk management than those whose do not, and more in regulatory agencies than nonregulatory ones. We also examine whether the curricular and professional characteristics of EA board members lead to different attitudes toward crisis management. We hypothesize that board members with strong scientific backgrounds (those with PhDs) may favor the agency taking a more autonomous role during crises, in comparison with board members without scientific backgrounds. We also expect that board members who belong to national governments but do not have professional experience in the public sector at the EU level will have negative perceptions of EA involvement in TBC management.

We also assess the relevance that board members place on different bodies involved in TBC management. Our study examines whether board members perceive certain political

principals—specifically, the European Commission, national regulatory agencies (NRAs), and national governments—to be more important than others when managing crises. Previous studies have diverged on this point: for example, Egeberg and Trondal (2011) and Thatcher (2011) highlighted the relevance of the Commission in shaping agencies’ decision-making, while other studies (e.g., Busuioc 2012) have emphasized the role of member states. Our initial findings suggest that both supranational and intergovernmental logics coexist in agencies’ decision-making processes, at least regarding TBC management. Although in peacetime the Commission may have more influence over EAs, our research shows that under crisis circumstances neither the Commission nor member states prevail over one other. In addition, our results indicate that the European Parliament is perceived as being less important than the European Commission and the member states despite the powers delegated to it regarding the oversight of EAs.

This paper is located at the intersection of the literature on EAs and that on TBC management. While the former has mainly focused on the institutional design of EAs and how this affects their further development (e.g., Majone 1996; Dehousse 2008; Kelemen and Tarrant 2011; Busuioc 2013), the latter deals with how different institutions and actors respond to the challenges of crises that affect different boundaries (e.g., Ansell et al. 2010). Within this strand, this article aims to contribute to the nascent literature focusing on the convergence of EU-level TBC management and the role of EU institutions (Boin and Rhinard 2008; Olsson 2009; Moloney 2010; van Ondarza and Parkes 2010; Boin et al. 2014). This article thus contributes to understandings of the EAs’ coordinating potential (particularly those of their management boards) during crisis times within the European polity, while also examining agencies’ limitations in terms of economic resources and legitimacy when confronted with decision-making processes.

The paper is organized as follows. First, we discuss the literature linking the performance of EAs and TBC management. Second, we offer an analytical framework and hypotheses to be empirically tested. Third, we discuss the two-tier methodological strategy mentioned above. Finally, we present our empirical findings.

2. AN ANALYTICAL FRAMEWORK FOR TRANSBOUNDARY CRISIS MANAGEMENT IN EUROPEAN AGENCIES: THE ROLE OF THE MANAGEMENT BOARD

Since the start of the European Union project, the bloc has faced the challenge of harmonizing the social and economic areas of member states. It has thus been argued that EAs are an institutional attempt to manage aspects of the EU integration process that require intense organizational resources (Eberlein and Grande 2005; Rittberger and Wonka 2011). This is precisely the context in which some EAs emerged as reasonable mechanisms for managing TBCs (Boin et al., 2014). The design of some of EAs in question included risk assessment or risk management mechanisms (e.g., EFSA, ECDC) while in some cases, agencies have had to develop new mechanisms that were not foreseen in their mandate when they came up against specific crises (e.g., FRONTEX).

Although there has been exponential growth in the number of agencies operating at the EU level, the literature has still not explored the logic behind their role in crisis management in depth. Broadly speaking, the literature on EAs have focused on four areas: their creation (e.g., Christensen and Nielsen 2010); the political and functional motivations behind their design (e.g., Majone 2000, 2002; Eberlein and Grande 2005; Coen and Thatcher 2008; Levi-Faur 2011); how formally or de facto independent they are from other political institutions and national governments (e.g., Gilardi 2005; Christensen and Laegreid 2006; Groenleer 2009; Wonka and Rittberger 2010; Trondal and Peters 2013); and how accountable they are to their political principals (Busuioc and Groenleer 2012; Busuioc 2013). Other strands also focus on functional elements of their day-to-day working dynamics, namely, the management boards or the relationship that regulators have with the European Commission (Egeberg et al. 2015) or the European Parliament (Busuioc 2012; Author).

Furthermore, EAs and TBCs have traditionally been studied separately. TBCs and organizational responses have drawn the attention of a handful of scholars on both sides of the Atlantic (e.g., Rosenthal, et al. 2001; Boin and Rhinard 2008; Ansell et al. 2010; 't Hart et al. 2013; Boin et al. 2014). At the EU level, some researchers have tried to understand the relationship between crises in the EU and the creation of crisis management instruments. For example, Boin et al. (2014: 419) claim that EU institutions and member states are a “policy laboratory for TBC management,” in that they have developed “European” capacities for dealing with the potential effects of transboundary threats.

Due to the multilevel nature of the EU, one of the major challenges identified by the literature is determining who is responsible for the response to different TBCs (Boin and

Rhinard 2008; Olsson 2009; Boin et al. 2013; Busuioc 2013). In fact, sometimes the diffuse nature of power at the EU level and the fragmentation of responsibilities have been signaled as possible causes undermining overall responses to crises. Managing TBCs at the EU level has implied EAs developing capacities akin to those of supranational and intergovernmental bodies so that they can contribute to the response. As part of the governance scheme for crises in Europe, EAs have become institutional actors with various management tasks (e.g., threat detection, sense-making, and coordination, among others), depending on their mandate and policy sector.

Within EAs, management boards may play a vital role in our understanding the role of agencies in TBC management, given that they are the most visible governing body. Most management boards are quite large and they often include one representative from each member state (mainly from national agencies or national ministries in the policy sector in which the agency operates), a few representatives from the European Commission, and, less frequently, representatives from other European institutions (such as individuals appointed by the European Parliament or the Council) along with additional stakeholders (e.g., Egeberg and Trondal 2011; Font 2015; Author). The functions of management boards include making sure that agencies meet the expectations of both EU institutions and national governments, approving strategic documents and the agency's lines of action, and setting the budget. They have the potential to shape agencies' activities while activating accountability mechanisms through their steering and managerial responsibilities (Kelemen and Tarrant 2011; Egeberg and Trondal 2011; Busuioc 2013). When TBCs emerge, management boards, as interorganizational bodies combining different administrative levels, face the challenge of becoming involved in solving them.

In this study, we define TBC management as the “set of capacities, tools, resources and strategies that can be used to limit the effects [of a TBC] in an effective and legitimate way” (Boin et al. 2015: 6). Institutions may carry out several strategic crisis management tasks with the aim of offering an effective, legitimate response. These include recognizing threats (detection); processing information about the threat by sharing it across the system and understanding it (sense-making); deliberating in environments of uncertainty (decision-making); identifying key partners while working with them (coordination); creating a narrative with information that can be understood by the public and the different actors involved in managing the response (communication); and finally, constructing a transparent account of actors' actions and inaction before, during, and after the crisis. Based on the analytical framework proposed by Boin et al. (2015), our research examines two aspects of TBC management: decision-making and coordination. We deem decision-making and coordination to

be central in the response to TBCs. On the one hand, effective decision-making within an agency means that resources can be put to work finding a common solution to an issue (Boin et al. 2017). On the other, the coherence of responses given in the interdependent settings where agencies operate can encourage coordination (Hood 1976: 17).

Decision-making refers to the capacity to decide on the best response for managing a TBC. According to Simon (1997), every organization needs clear procedures that facilitate rapid and informed decision-making. Christiansen and Nielsen (2010: 177) define decision-making as “the authorization of the agency to act in its own capacity, and ranges from purely informational tasks to binding decisions.” Hence, we assume that decision-making involves assessing the information at hand, suggesting different options, and offering scenarios. According to Cabanne and Lodge (2017: 18), organizations within policy regimes have the capacity to decide on the information they gather (i.e., risk-based strategies), the decision-making rules, and the behavior of other organizations. We also assume that a clear decision-making system implies that the agency has developed protocols that must be activated when confronted with crises or has a flexible organizational strategy that allows decisions to be made in the absence of such protocols. Decision-making within the agency should distinguish between the strategic and operational levels. For instance, when the European Food Safety Agency (EFSA) was confronted with the *E. coli* outbreak in 2011, it already had a protocol in place on the different decisions the scientific team should make to assess the risk and present possible scenarios to EU authorities and member states.

Coordination is interconnected with decision-making and is a key component of effective responses to TBCs (Heims 2016; Boin et al. 2014). In particular, it can be defined as those mechanisms that facilitate the creation of a common ground within networks of interdependent actors to respond to crisis challenges. Coordination is challenging since it implies working with a range of organizations with different motivations and resources under conditions of urgency and uncertainty (Ansell et al., 2010). Unlike decision-making inside an agency, coordination refers to those actions that are decided and implemented in conjunction with other actors who are not part of the agency. As Cabanne and Lodge (2017) state, coordination capacities refer to those mechanisms that bring different organizations and stakeholders together (e.g., the public, private organizations, international partners) to perform differentiated tasks with a common aim: responding to the crisis in question. Coordination relies on the capacity to help participants exchange information and identify common areas for cooperation while settling potential conflicts among themselves (Jordan and Schout 2006: 7).

3. EXPLAINING VARIATIONS IN AGENCIES' CRISIS MANAGEMENT CAPACITY

We believe that the variations in the extent to which EA management boards cope with TBCs are related to two sets of factors: on the one hand, the agencies' institutional characteristics; and on the other, the professional attributes of their board members. Based on the existing literature on agencification, we identified possible explanatory factors were identified and developed four hypotheses. The hypotheses herein presented were operationalized in an exploratory manner using the two aspects of TBC management presented above.

3.1 Regulatory Vs Nonregulatory Agencies

The need to understand the functional characteristics of the different EAs has prompted scholars to put forward typologies to classify their role more accurately. For example, Griller and Orator (2010) argue that most agencies are executive or providers of information (that is, they have no predecision-making power) while the rest are regulatory and their main role is the application of rules. Chiti (2013) offers a threefold typology that divides EAs into those with genuine decision-making powers, those that coordinate common systems, and those that provide information. In general, EAs can be functionally categorized into those that have regulatory powers and those that do not (Busuioc 2013). We assume that members of management boards in agencies with regulatory powers will have different perceptions of the effectiveness of their role in handling TBCs. Since these agencies have binding powers, we argue that officials working at them will be more likely to perceive that their respective agency is performing better in comparison with the others. Accordingly, our hypothesis holds that:

H1: Management board members belonging to agencies with regulatory powers will be more prone to perceiving that their agencies have greater decision-making and coordination capacity during crises than board members of agencies without binding powers.

3.2 Risk-oriented versus nonrisk-oriented agencies

As mentioned, some scholars have emphasized that some EAs were created because of crisis episodes (Vos 2000; Rhinard 2009). For example, Vos (2000) has extensively argued that the European Food Safety Authority was created as a response to the 1996 and 2000 "mad cow disease" crises in the UK. Likewise, other scholars have argued that European supervisory authorities (i.e., SRB, EIOPA, EBA, ESMA) came about as a consequence of the 2008 financial crisis. It is precisely for this reason that some EAs have been provided

with risk assessment and risk management mechanisms for tackling transboundary threats. These agencies are characterized by the fact that they include provisions on risk preparedness, risk assessment, and risk detection tools in their founding documents. Hence, we believe that board members of agencies that are formally designed to respond to risks will be more likely to perceive their respective agencies as being more effective than those at agencies with no clear mandate for risk assessment or management.

H2: Management board members belonging to agencies that focus on risk assessment or management will be more prone to perceiving their agencies as having greater decision-making and coordination capacities when responding to crises than board members from agencies that do not focus on risk-oriented activities.

3.3 Board members' educational backgrounds: scientific versus professional educational training

We also argue that board members' scientific knowledge may shape their attitudes toward the agency's role in crisis management. According to Thatcher (2002) and Majone (1997), this is the case for three main reasons: first, policy decisions have to be solidly grounded, given that they must withstand judicial challenges from various sectional interests; second, to legitimize the decisions agencies make; and third, because of the need to create a reputation that justifies the regulatory space in which the agency navigates. In a similar line, Christensen and Laegrid (2006) claim that members of agencies where levels of professionalization are high and expertise and professional background are prioritized will generally see themselves as being more independent from other principals. If we apply these theoretical premises to this study, we can expect that board members with the highest levels of education (a PhD) will be more likely to ensure that scientific criteria prevail during decision-making. In particular, we expect that high levels of education among board members' in the agency's field of operation will reinforce the perception of the agency as being effective or having the necessary technical capacities for responding to crises.

H3. Members of management boards with doctoral-level education will be more prone to perceiving their agencies as having greater decision-making and coordination capacity vis-à-vis crises episodes than those members who do not have the same educational background.

3.4 Intergovernmental and supranational profiles

Management boards are central to understanding how independent an agency is from its political principals (Kelemen 2002; Kelemen and Tarrant 2011; Egeberg and Trondal 2011; Busuioc 2013). Scholars on agencification (e.g., Egeberg et al. 2014, 2015; Egeberg and Trondal 2016) have explicitly or implicitly followed two different logics: intergovernmentalism and supranationalism. On the one hand, some scholars (e.g., Majone 2000) have followed an implicitly intergovernmental logic, arguing that member states established agencies to deal with policy complexity and show a credible commitment toward decisions that are more technical and less political. Conversely, other explanations based on empirical evidence (e.g., Font, 2015) demonstrate that the Commission has exerted greater influence over certain agencies and their boards. Applying these arguments to the study of management boards, we assume that there is a relationship between the strongest professional link that EA board members have with a specific political principal, either at the European Union level or the national level, and the agency's perceived effectiveness at TBC management. Moreover, we expect those board members with a professional trajectory at the national level to be more pessimistic toward the effectiveness of the EA in question at TBC management.

H4. Board members with professional experience in the public sector at the national level (but not within the EU institutional environment) will be less likely to perceive their agencies as having greater decision-making and coordination capacity vis-à-vis crises.

4. DATA AND METHOD

The empirical analysis in our study is based on two original sources: the first is an online survey of EA management board members' perceptions of TBC management and the second is based on an original biographical database of these board members. As mentioned earlier, our analysis centers on management board members since these are the governing body for the agencies in question and also represent supranational actors (such as EU institutions) and intergovernmental ones (such as member states) (Egeberg and Trondal 2011; Font 2015). Moreover, the management board is the organizational body in which multiple connections are materialized and where deliberation takes place with the aim of designing key agency decisions.

The online survey was distributed among management board members from 30 EAs that existed in 2016 and consisted of four sections. The first section focused on an assessment of the agency's decision-making capacity when facing TBCs; the second concerned

the agency's coordination capacity; the third was about its communication capacity; and the fourth looked at the agency's direct involvement in crisis management (see annex 1). After sending three reminders, we obtained 162 responses from board members from 27 out of the 30 EAs surveyed (an overall response rate of 18.8%): 0.6% of respondents were appointed by the European Parliament, 2.4% by the Commission, 6.1% by the Council, 78.2% by member states, and 10.3% by stakeholders. We excluded two agencies from our analysis as we did not obtain any responses from them (ESMA and SRB) and another (GSA) because the response rate was very low (3%) from GSA. Two other agencies (EUROJUST and OSHA) were not included in the survey as they did not agree to participate. Furthermore, we did not include agencies under the common security and defense policy (Satcen, EDA, and EUISS) or the CdT, due to its scope as a body serving other EU institutions through translation work. The survey was submitted to 887 of 947 board members from the agencies that were included (we could not send the survey to 60 board members due to lack of contact information) (for more on the response rate, see annex 1).

In addition, we also collected biographical data on the board members surveyed across the 27 EAs included in our analysis. This information was collected through agency websites, online CVs, LinkedIn, and the websites of the primary organizations they work for. From this database we selected variables relating to: (1) the type of appointing body for management board members (i.e., the European Parliament, European Commission, European Council, member states, stakeholders, non-EU countries, and other EU agencies); (2) each board member's highest educational qualification, so as to measure the percentage of members holding a PhD; and (3) each board member's professional background, to measure the percentage of members with experience in different sectors between 2005 and 2015, namely, experience working at universities (as full-time professors or researchers), or in the private sector, public sector (at the national or EU levels), or third sector (at NGOs, political parties, and trade unions).

5. FINDINGS. I: DESCRIBING BOARD MEMBERS' ATTITUDES TOWARD CRISIS MANAGEMENT

In this section, we focus on describing board members' attitudes toward the above-mentioned two capacities that EAs perform when confronted with crisis situations: decision-making and coordination. In particular, we examine board members' perceptions regarding the role of important players during a TBC, comparing those from regulatory agencies and nonregulatory agencies, and those from agencies with a clear mandate for risk assessment versus those with a nonrisk-oriented profile. In addition, we also examine whether the pro-

fessional characteristics of EA board members lead to different attitudes toward crisis management. Specifically, we examine differences between board members who hold PhDs and those who do not, and board members with experience in the public sector at both the national and EU levels.

5.1 Decision-Making: Important players in EA decision-making processes during a TBC

Firstly, the respondents differed in terms of the importance they attributed to specific players in agency decision-making processes during a TBC. The Commission emerged as being either important or extremely important when the agency is confronted with a crisis (82%). It was followed by NRAs and national governments (78.2% for both). Conversely, business associations and civil society organizations (CSOs) were assigned much lower levels of importance by respondents (49.1% believed the former to be important or extremely important while 48.5% said this of the latter) (see table 1). Results regarding the importance of specific players in agency decision-making during a TBC did not differ much when analyzed according to whether respondents were from regulatory or nonregulatory agencies. For instance, the Commission was seen as an important or extremely important player for respondents from both types of agencies. In contrast, the European Parliament's importance varied between respondents from regulatory and nonregulatory agencies: while 47.1% of respondents from regulatory agencies said it was important or extremely important, this figure increased to 66% among respondents from nonregulatory agencies. When comparing risk-oriented and nonrisk-oriented agencies, the importance attributed to the European Parliament varied: while 48.6% of respondents from risk-oriented agencies believed this actor to be important or extremely important, this rate went up to 66% among nonrisk-oriented agencies (see table 1).

Table 1. Differences across agencies: To what extent are the following players important in the agency's decision-making process during a TBC?

		Business (%)	National Agencies (%)	Council (%)	EC (%)	EP (%)	CSOs (%)	National Governments
General	Extremely Important/ Important	49.09	78.18	66.06	81.81	58.61	48.49	78.18
	Somewhat Important/ Not at all	47.88	20.00	29.09	13.94	35.75	46.06	16.37
	N/A	3.03	1.82	4.85	4.24	6.06	5.45	5.45
Regulatory	Extremely Important/ Important	54.42	76.47	61.77	79.41	47.06	42.65	72.06
	Somewhat Important/ Not at all	42.64	20.59	33.82	16.17	45.59	52.95	22.06
	N/A	2.94	2.94	4.41	4.41	7.35	4.41	5.88
Non-Regulatory	Extremely Important/ Important	45.36	79.38	69.08	83.50	65.98	52.58	82.48
	Somewhat Important/ Not at all	51.54	19.58	25.78	12.37	48.87	41.24	12.37
	N/A	3.09	1.03	5.15	4.12	5.15	6.19	5.15
Risk	Extremely Important/ Important	50.00	82.44	62.17	75.68	48.65	51.35	77.03
	Somewhat Important/ Not at all	47.30	14.86	33.78	20.27	44.60	44.60	18.92
	N/A	2.70	2.70	4.05	4.05	6.76	4.05	4.05
Non-Risk	Extremely Important/ Important	48.35	74.72	69.23	86.81	65.93	46.16	79.12
	Somewhat/ Not at all	48.35	24.17	25.27	8.79	28.57	47.26	14.29
	N/A	3.30	1.10	5.49	4.40	5.49	6.59	6.59

When we looked at differences among the professional profiles of EA management board members, we found that perceptions did not differ much between those in high-ranking posts who hold a PhD and those who do not (see annex 2). However, we did find some variations when we examined differences in members' professional experience. Although we have to be cautious with these results given that only 7% (12) of the respondents have previous professional experience at the EU level, 25% of board members with such experience perceived that the Council is an important or extremely important player in agency decision-making, while members with experience at the national level attributed a higher level of importance to the Council (65% said that it was an important or extremely important player). On the other hand, while 41.7% of those with experience at the EU level believe that the European Parliament is important or extremely important, 57.8% of those with experience at the national level thought so (see annex 2).

5.2. Coordination: Important players in EA coordination during a TBC

As was the case regarding decision-making, a high percentage of respondents considered NRAs (72.6%) and the Commission (71.3%) to be important or extremely important in coordinating players during a TBC. On the other hand, social actors such as CSOs and business associations were only considered to be important or extremely important by 40.9% and 45.7% of respondents, respectively, and 40.9% of respondents considered this to be true of the European Parliament (see table 2). When the results were disaggregated according to whether respondents were from regulatory or nonregulatory agencies, the differences were quite telling. For example, the Council was an important or extremely important for 45.59% of respondents from regulatory agencies and for 56.26% of those from nonregulatory agencies. Some 27.94% of respondents from regulatory agencies and 50% from nonregulatory ones said this of the European Parliament. As in relation to agencies' decision-making functions, there was a difference between respondents from regulatory and nonregulatory agencies regarding the importance of business associations and CSOs: while 63.24% of those from regulatory agencies considered business associations to be important or extremely important, 32.35% said this of CSOs. In contrast, respondents from nonregulatory agencies attributed a higher level of importance to CSOs (46.88%) and a lower level to business associations (33%). One eye-catching result emerged from the comparison of risk-oriented versus nonrisk-oriented agencies, namely that 28.8% of the respondents from the former deemed the European Parliament to be important or extremely important in coordinating a response to the TBC with the agency, but this figure was as high while as 50.5% among those from nonrisk-oriented agencies. There were no major differences in responses between the two types of agencies for the remaining players (see table 2).

Table 2. Differences across agencies: how important are the following players in coordinating different tasks related to TBC management (e.g., detecting a threat, gathering information, communicating information, implementing actions)?

		Business (%)	National Agencies (%)	Council (%)	EC (%)	EP (%)	CSOs (%)	National Governments (%)
General	Extremely Important/ Important	45.74	72.57	51.83	71.34	40.85	40.86	68.20
	Somewhat Important/ Not at all Important	39.02	14.03	33.44	16.47	44.51	43.90	18.29
	N/A	15.24	13.41	14.63	12.20	14.63	15.24	13.41
Regulatory	Extremely Important /Important	63.24	73.53	45.59	66.18	27.94	32.35	63.23
	Somewhat Important/ Not at all Important	23.53	13.23	39.70	22.06	55.88	51.47	22.06
	N/A	13.24	13.24	14.71	11.76	16.18	16.18	14.71
Non-Regulatory	Extremely Important/ Important	33.33	71.87	56.26	75.00	50.00	46.88	71.88
	Somewhat Important/ Not at all Important	50.00	14.58	28.16	13.00	35.46	38.54	15.62
	N/A	16.67	13.54	14.58	12.50	13.54	14.58	12.50
Risk	Extremely Important/ Important	47.95	78.09	49.32	68.50	28.77	41.10	71.24
	Somewhat Important/ Not at all Important	39.73	12.33	39.77	21.92	58.91	46.58	17.81
	N/A	12.33	9.59	10.96	9.59	12.33	12.33	10.96

Non-Risk	Extremely Important/ Important	43.96	68.13	53.85	73.63	50.55	40.66	65.93
	Somewhat Important/ Not at all Important	38.46	15.39	28.57	12.09	32.97	41.76	18.68
	N/A	17.58	16.48	17.58	14.29	16.48	17.58	15.38

When the same results were disaggregated into board members holding PhDs versus those without them, some differences emerged. For example, it is noticeable that 66.7% of the respondents with PhDs considered NRAs to be important or extremely important while this figure was 76% among those without PhDs. When the results were disaggregated according to those with public-sector experience at the national level versus those with experience at the EU level, an important difference emerged regarding the perceived importance of the Council: while 47.76% of those with national-level experience considered the Council to be important or extremely important, only 16.67% of those with EU experience said the same thing (see annex 3).

5.3. Overall assessment of EAs facing crisis episodes

Finally, the survey also included questions regarding an overall assessment of the role of EAs during crises. In this section, we asked whether EAs have the necessary resources to respond to a crisis on their own: while 37.3% agreed or strongly agreed with this statement, 46% disagreed or strongly disagreed. When we disaggregated the data, the results showed sharp differences among respondents. While 54.6% of those from regulatory agencies agreed/strongly agreed that their agencies have the necessary resources, only 23.2% of respondents from nonregulatory agencies claimed this. Among those from risk-oriented agencies, 45.1% of respondents agreed/strongly agreed, while this was only the case for 31.11% of those from nonrisk-oriented agencies (see table 3).

Table 3. In your opinion, does your agency have the necessary resources to respond to a crisis on its own?

	General	Regulatory	Non-Regulatory	Risk	Non-Risk	PhD	No PhD	Public Sector - National Level	Public Sector -EU Level
Strongly Agree /Agree	37.27	57.57	23.16	45.07	31.11	42.42	35.11	41.22	33.33
Disagree /Strongly Disagree	45.96	25.76	60	42.25	48.89	42.42	47.88	43.51	41.67
N/A	16.77	16.67	16.84	12.68	20.00	15.15	17.02	15.27	25.00

6. FINDINGS II: EXPLAINING BOARD MEMBERS’ ATTITUDES TOWARD CRISIS MANAGEMENT

In this section, we focus on examining three dependent variables which would allow us to assess the perceived agency’s effectiveness at decision-making and coordination and the perceived availability of necessary resources to manage TBCs. We do so in a purely exploratory manner, given the low response rate we obtained from our survey. The wording of the first two questions was as follows: (a) *How effective do you consider the agency’s decision-making process to be during a TBC?* and (b) *How effective do you consider the agency to be at coordinating different players during a crisis?* In addition, with the aim of capturing the degree to which board members believe that their respective EAs have the necessary resources to respond to a crisis, we also included the following question: (c) *In your opinion, does your agency have the necessary resources to respond to a crisis on its own?* The first two variables were ordinal variables with four categories: “Extremely ineffective” (1), “Somewhat ineffective” (2), “Effective” (3), and “Extremely effective” (4). The third dependent variable was also an ordinal variable that ranged from (1) “Strongly disagree” to (4) “Strongly agree.”

When we asked the board members how effective they considered the agency’s decision-making process to be during a TBC, 71.34% of respondents said they considered the decision-making process to be effective or extremely effective. Finally, when it came to the coordinating role of the agency during a TBC, 68.9% of respondents said they considered their agency to be effective or extremely effective, responses which seem very optimis-

tic. We will now present a preliminary analysis with the aim of explaining differences in board members' attitudes.

To test our first hypothesis (H1), regarding the attitudes of members belonging to agencies with regulatory powers versus those that do not, we used a binary variable showing whether each board member belonged to an agency with regulatory power (1) or did not (0). For the second hypothesis (H2), regarding the attitudes of members belonging to agencies with risk management/assessment mandates, we also used a binary variable indicating members from agencies that did include these provisions in their founding regulations (1) versus members from agencies with no legal provisions on this subject (0). To test our hypothesis on the educational qualifications of board members (H3), we used a binary variable indicating whether each management board member included in the analysis had been awarded a PhD (1) or not (0). Furthermore, with the aim of measuring the presence on the board of a public-sector profile mainly developed at the national level, we identified whether each board member had professional experience working in the public sector at the national level without any experience at the EU level between 2005 and 2015 (1) or not (0).

We also included two control variables. First, we distinguished between board members belonging to EU15 countries—Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom—who were assigned the value of 1, and 0 otherwise. We expected that representatives from new EU member states would be more likely to be pessimistic regarding their performance when confronted with a TBC. Since previous studies have emphasized that the institutional design of national agencies develops according to their administrative tradition (e.g., Authors), we also included a control variable in the expectation that the role of administrative traditions may affect board members' attitudes. To do this, we used the categorization developed by Painter and Peters (2010), assigning board members to one of four categories: (1) the Napoleonic tradition, (2) the Germanic tradition, (3) the Scandinavian tradition, and (4) the Anglo-Saxon tradition.¹

To examine the effects of the above-mentioned agency characteristics and board members' professional attributes, we used ordinal logistic regression (OLR) clustered by agency. We use an ordered analysis because our dependent variables take on an order according to the efficiency levels perceived by EA board members. Since we ran clustered models, our analysis included EAs from which we obtained at least two responses. Since we

¹ These classifications did not include Croatia. Taking into account the public administrative traditions of Slovenia and their common history, we classified Croatia as belonging to the Napoleonic tradition.

only obtained one response from EIOPA, the regression analysis did not include this agency. The main results are reported in table 8. As a robustness check, we also ran the models without the control variables, but the results remained practically the same.

Table 4. Ordinal logistic regression for perceived effectiveness and necessary resources for facing transboundary crises in European agencies

	Effectiveness- Decision Making	Effectiveness - coordination	Necessary resources
PhD degree	-0.44 (0.43)	-0.27 (0.31)	-0.007 (0.36)
Professional experience- National level (no EU)	-0.16 (0.44)	-0.86** (0.45)	-0.05 (0.54)
Regulatory agencies	-.03 (0.42)	-0.61* (0.38)	-1.80*** (0.41)
Risk-related agencies	.44 (0.39)	0.89** (0.38)	.84** (0.35)
Administrative tradition (Napoleonic tradition is the ref. category)			
Germanic	.87** (0.36)	.09 (0.33)	-.46 (0.30)
Scandinavian	.35 (0.52)	.34 (0.65)	-.32 (0.39)
Anglo-saxon	.04 (0.54)	-.02 (0.69)	-1.52* (0.78)
EU-15	-.48 (0.42)	-.32 (0.29)	-.12 (0.32)
Cut 1	-2.04 (0.67)	-2.54 (0.50)	-2.89 (0.70)
Cut 2	-1.23 (0.68)	-1.95 (0.49)	-2.48 (0.65)
Cut 3	1.60 (0.65)	.93 (0.60)	-.83 (0.51)
Cut 4	4.29 (1.02)	3.57 (0.90)	1.34 (0.52)
Obs	125/26	125/26	123/26
Pseudo R²	0.03	0.03	0.08

	Effectiveness- Decision Making	Effectiveness - coordination	Necessary resources
Log-likelihood	-143.60507	-141.67238	-164.29638

Note: Numbers in parentheses represent standard errors. Significant at * $p \leq .10$; ** $p \leq .05$; *** $p \leq .01$.

Although we expected the same results across the two aspects we examined (decision-making and coordination), the results show that board members have different beliefs about how their agencies perform these tasks when facing TBCs.

In H1, we expected that management board members belonging to regulatory agencies would be more prone to perceiving them as being effective, particularly because these agencies have been granted binding powers. However, our exploratory analysis ran contrary to our theoretical expectation: our results show that board members from regulatory agencies are less likely to perceive higher levels of effectiveness in the coordination of their respective EAs. It is worth noting that the results regarding the influence of whether members were from regulatory agencies on their perception of agencies' effectiveness at decision-making tasks are not significant. This preliminary result could be confirmed based on a larger number of cases. But until now, these findings show that when board members from regulatory agencies sit at the negotiating table to decide on policy routes, they perceive that they would be less able to coordinate their agency's response when facing a crisis than board members belonging to informative or operational agencies do. This result suggests that there is a gap between the expectations of board members belonging to these agencies and the way external actors (e.g., institutions belonging to different member states) actually participate in the coordination of crises responses.

On the one hand, the results suggest that board members from agencies with a risk-oriented profile are more likely to perceive higher levels of effectiveness at decision-making and coordination. These results partially support our theoretical expectations regarding risk-oriented agencies (H2), as these agencies include provisions in their founding regulations for coping with emerging threats at the EU level. That is to say, board members' beliefs support the interpretation that this type of agency is more likely to carry out formal, straightforward procedures to coordinate different actors effectively.

At the individual level, the results suggest that board members with a public-sector profile at the national level seem to be more pessimistic regarding agencies' capacities for coordinating their policy decisions when their respective agencies face a TBC. A possible interpretation is that having professional experience outside the national sphere (e.g., previ-

ous professional experience working in EU institutions) allows socialization processes within supranational bodies. When we controlled for the effect of board members' administrative traditions, the results suggest that board members belonging to a Germanic administrative tradition are more likely to perceive their agencies as being effective in the policy decision-making process than those from a Napoleonic one. This can be interpreted as being related to the board-based tradition of decision-making in the Germanic world, in contrast with the more hierarchical style of other administrative traditions.

The results also suggest that board members from regulatory agencies are more likely to perceive that their respective agencies have the necessary resources for facing TBCs while those in risk-oriented agencies are more inclined to believe that their agencies do not have the necessary resources. This result confirms that regulatory agencies have been granted sufficient resources for carrying out their tasks (e.g., staff, budget, competences); however, when it comes to their role in the coordination process, other factors may intervene (e.g., the salience of the crisis, national politics, or the politicization of issues related to the crisis). In contrast, this result also suggests that although board members from risk-oriented agencies believe that their respective EAs are effective in coordinating crises episodes, they are more likely to believe that the resources available for doing so are not sufficient. When we controlled for the effect of board members' administrative traditions, board members belonging to an Anglo-Saxon tradition turn out to be less likely to perceive their agencies as having the necessary resources for facing crises than those from a Napoleonic one.

Finally, although we expected that higher level educational qualifications among board members would influence their perceptions, we did not find any significant results to this effect.

7. CONCLUSIONS

The last two decades have shown growth in the number and size of the challenges faced by the European Union. From an initial stage when the European project was still being constructed, we have moved onto one of consolidation. However, multiple challenges of a financial, sociopolitical, environmental, and technological nature seem to be new sources of TBCs. Since 2008, the financial crisis has called the whole Euro-currency project in to question, we are witnessing the growth (and acceptance) of disruptive and aggressive political rhetoric, and the refugee crises seem to pose immediate challenges to Europe. It is important to understand these new challenges and how European institutions should cope with them. In this context, European agencies, with their technical role, may play a significant role while providing some of the answers needed in this process.

In this article, we aimed to examine the attitudes of the members of EA management boards toward agencies' capacities to manage two aspects of TBCs: decision-making and coordination. In line with other studies that are unrelated to crisis management (Dehousse 2008; Egeberg et al. 2015), our study confirmed that some political principals have a more central role in relation agencies when managing crises. In general terms, our study showed that the board members we polled attributed more importance to the European Commission, NRAs, and national governments regarding both aspects that we analyzed. Another interesting result is that at the EU level, the European Parliament is perceived as being less important than other political principals. The results also demonstrated that the respondents attribute more importance to business associations than to CSOs, although neither of these types of social actor are viewed as being particularly important in comparison with the EAs' political principals.

Following this analysis, we would like to highlight the paramount role of EAs in coordination during a crisis. EU agencies are not homogenous bodies and they respond to different political principals (e.g., EU institutions and member states). Given the heterogeneity of all the players involved in crisis management, the agency's role should be to become a coordinating node that contributes to a coherent response to crises. This is especially relevant if we take into consideration the importance of the European Council, NRAs, and national governments in the coordination of actions during a crisis. Whether agencies are regulatory or nonregulatory or have a risk-oriented profile or not, they depend on the information they obtain from other players to make their assessments and make decisions. They also depend on other players to enforce the guidelines and recommendations they give at the EU and national levels. This is in line with the work by Heims (2016), who states that the

level of coordination between EAs and NRAs responds to the vested interests that actors have in different policy sectors.

Our analysis also supports the idea that although board members from regulatory agencies believe that their respective EAs have the necessary resources for coping with TBCs, they also perceive their agencies to be less effective at coordination tasks. A possible explanation is that coordination requires the involvement of the member states which ultimately implement the actions that are decided on. There seems to be a gap, therefore, between agencies' expectations and member states' actions. In contrast, respondents from risk-oriented agencies believe that their respective agencies do not have the necessary resources for facing TBCs. These results suggest that the fact that an agency's regulations include provisions for coping with emerging threats does not translate into more resources. However, these same respondents assume these agencies to be more effective at coordinating responses to crises. Their effectiveness is therefore dependent on whether they make good use of their mandate to cope with crises, even in the absence of sufficient resources to respond to them.

Studying TBCs through the perceptions of EA board members can better indicate how the "problems of fragmentation, sectoralization and policy interdependence so commonly seen along the EU institutions and member states" (Peters and Wright 2001: 158) are being overcome. However, future research on agencies' roles in crisis management should also examine the attitudes of the staff members who are involved in the day-to-day management of the agency (e.g., directors, scientific members, experts). Doing so would expand our knowledge and understanding of agencies' involvement in different crises. Moreover, further analysis would also benefit from studying board members' and staff's perceptions of crisis management according to the policy sector the agency belongs to. An agency's effectiveness is not only the outcome of decisions made by the board or the resources at its disposal but also depends on external factors related to the different sensitivities of the sector within which it operates. Ultimately, future research should contribute to a better, and deeper understanding of agencies as first-line respondents to the emerging threats Europe faces in different areas.

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ANNEX 1. RESPONSE RATE BY AGENCY

	Agency Acronym	Number of MB members (according to EAs founding documents)	Number of respondents (after third reminder)	% Response rate
1	ACER	9	2	22,2 %
2	BEREC	29	6	20,7 %
3	CEDEFOP	89	18	20,2 %
4	CEPOL	26	6	23,1 %
5	CPVO	29	4	13,8 %
6	EASA	33	4	12,1 %
7	EASO	31	2	6,5 %
8	EBA	7	2	28,6 %
9	ECDC	33	6	18,2 %
10	ECHA	36	8	22,2 %
11	EEA*	32	3	9,4 %
12	EFCA	34	4	11,8 %
13	EFSA	15	10	66,7 %
14	EIGE	19	3	15,8 %
15	EIOPA	7	1	14,3 %
16	EMA	36	7	19,4 %
17	EMCDDA	32	7	21,9 %
18	EMSA	36	9	25,0 %
19	ENISA	30	7	23,3 %
20	ERA	36	10	27,8 %
21	ETF	34	7	20,6 %

22	EUIPO (OHIM)	31	5	16,1 %
23	EU-LISA	30	7	23,3 %
24	EUROFOUND	90	12	13,3 %
25	EUROPOL	29	4	10,3 %
26	FRA	31	7	22,6 %
27	FRONTEX	30	3	10,0 %
	TOTAL	874	164	18,8 %

ANNEX 2. DIFFERENCES ACROSS PROFESSIONAL PROFILES: TO WHAT EXTENT ARE THE FOLLOWING PLAYERS IMPORTANT IN THE AGENCY'S DECISION-MAKING PROCESS DURING A TRANSBOUNDARY CRISIS?

		Business (%)	National Agencies (%)	Council (%)	EC (%)	EP (%)	CSOs (%)	National Governments (%)
PhD	Extremely Important/ Important	36.36	72.72	63.63	75.75	54.54	54.54	78.79
	Somewhat Important/ Not at all Important	57.57	24.24	33.33	21.21	42.42	42.42	18.18
	N/A	6.06	3.03	3.03	3.03	3.03	3.03	3.03
No PhD	Extremely Important/ Important	52.57	80.42	65.98	82.48	55.67	48.46	78.35
	Somewhat Important/ Not at all Important	45.36	17.52	28.87	12.37	37.11	45.36	15.46
	N/A	2.06	2.06	5.15	5.15	7.22	6.19	6.19
Public Sector - National Level	Extremely Important/ Important	44.44	78.52	65.18	80.00	57.78	43.71	80.00

	Somewhat Important/ Not at all Important	51.85	19.25	29.63	15.55	36.29	51.11	15.55
	N/A	3.70	2.22	5.19	4.44	5.93	5.19	4.44
Public Sector - EU Level	Extremely Important/ Important	41.66	45.00	25.00	75.00	41.67	50.00	75.00
	Somewhat Important/ Not at all Important	58.33	25.00	66.67	16.67	50.00	41.66	8.33
	N/A	0.00	0.00	8.33	8.33	8.33	8.33	16.67

Note: NA= No answer.

ANNEX 3. DIFFERENCES ACROSS PROFESSIONAL PROFILES: HOW IMPORTANT ARE THE FOLLOWING PLAYERS IN COORDINATING DIFFERENT TASKS RELATED TO TRANSBOUNDARY CRISIS MANAGEMENT (E.G. DETECTING A THREAT, GATHERING INFORMATION, COMMUNICATING INFORMATION, IMPLEMENTING ACTIONS)?

		Business (%)	National Agencies (%)	Council (%)	EC (%)	EP (%)	CSOs (%)	National Governments (%)
PhD	Extremely Important/ Important	48.48	66.66	60.60	72.72	51.51	45.45	72.72
	Somewhat Important/ Not at all Important	36.36	21.21	24.24	15.15	30.30	39.39	15.15
	N/A	15.15	12.12	15.15	12.12	18.18	15.15	12.12
No PhD	Extremely Important/ Important	50.00	76.04	48.96	70.83	35.41	42.71	68.75
	Somewhat Important/ Not at all Important	37.50	10.41	37.50	17.71	51.04	43.74	18.75
	N/A	12.50	13.54	13.54	11.46	13.54	13.54	12.50
Public Sector - National Level	Extremely Important/ Important	45.53	74.63	47.76	70.15	38.80	39.56	68.66

	Somewhat Important/ Not at all Important	38.81	11.95	37.31	17.91	46.27	44.78	17.91
	N/A	15.67	13.43	14.93	11.94	14.93	15.67	13.43
Public Sector – EU Level	Extremely Important/ Important	41.67	66.67	16.67	66.67	25.00	41.67	58.34
	Somewhat Important/ Not at all Important	41.66	16.66	66.67	16.67	58.33	41.67	25.00
	N/A	16.67	16.67	16.67	16.67	16.67	16.67	16.67

Note: NA= No answer.