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Shots, sympathy, and societal support: How conflict intensity translates into cooperative behaviour towards the displaced

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ABSTRACT

Severe shocks, such as natural disasters or major conflicts, can trigger substantial international support in the immediate aftermath. The continuation of support depends on the level of attention in the public discourse. Whereas general attention will inevitably decline with time, a resurgence of fighting could rekindle societal support abroad. Based on daily news coverage relating to 39 European countries, the emergence of such an offsetting effect is evaluated by introducing the concept of conflict pressure to quantify indirect conflict exposure. Societies not directly involved in a major conflict are found to respond to conflict escalation nevertheless: Across all stakeholder groups, attention dedicated to refugees increases temporarily, irrespective of actual support requirements. Providing additional material support to displaced individuals for a prolonged time, in turn, is mostly within the purview of governmental actors and, surprisingly, those from the economy.

1. Introduction

Civic engagement, such as volunteering and supporting others, is indicative of deeply rooted altruism that is present in virtually all human societies and cultures. Approximately one-quarter of Europeans engage in volunteering activities regularly (Detollenaere et al., 2017). This is complemented by corporate volunteering, where employers enable employees to volunteer. Participating in the provision of humanitarian aid, such as the deployment of skilled staff in emergency situations, is common amongst public sector employers (Pérez et al., 2014). Corporate employers' predominant involvement comes in the form of fundraising activities. Providing resources and offering support in line with their capabilities is thus a relatively widespread phenomenon for various societal groups.

However, time and financial resources to support others are finite. Their provision may also depend on a third resource, namely attention, which can be scarce in an information-rich environment (Simon, 1971). Human attention is limited due to bounded rationality (Kahneman, 2003). Facing complex choices, individuals are compelled to follow opinion leaders (Stadelmann and Torgler, 2014). Limited information processing capacities also contribute to news overload that spurs news fatigue and analysis paralysis (Song et al., 2017), which triggers news avoidance (Gurr and Metag, 2021). Individual attention scarcity is complemented by short-lived media cycles on the aggregate level: Even in the case of most severe events, e.g. a large-scale war in relative proximity, societal attention can be fleeting.

Yet declining attention may prove fatal: Whenever the allocation of resources or policy-making processes depend on public attention or media pressure (Figenschou et al., 2019), such attention decline may slow down progress or lead to the abandonment of a target. Attention scarcity may produce highly problematic outcomes in the long run since most transnational challenges, e.g. ending (military) conflict, require coordinated and persistent involvement of many stakeholders. This applies in particular

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to global challenges, such as climate change (Gampfer et al., 2014), which is likely to incite future conflicts and lead to forced displacement (Abel et al., 2019). Ultimately, this implies a continued need to provide humanitarian aid that could test the boundaries of host societies' willingness to provide support towards the displaced in light of declining attention.

The resulting conundrum can be described as follows: What is required to maintain societal attention for a prolonged time? How urgent a challenge is needed, or how much "pressure" would be required to offset otherwise declining support levels? To answer these questions, this study investigates how a military conflict, which led to a major humanitarian and economic crisis, influences public attention and support in third countries.

Employing detailed information on incidents in Ukraine, this study develops measures of "conflict pressure" experienced across European economies. These conflict pressure measures account for multiple simultaneous conflict locations and allow us to investigate how geographically and time-varying conflict intensity alters levels of public support for displaced individuals. Due to the unexpected outbreak of the war in Ukraine, and the high variability of conflict intensity, this scenario allows a clear separation of long-term trends and immediate effects. Public support for displaced individuals in host societies is evaluated using daily media records that are obtained from the Global Database on Events, Language, and Tone (GDELT). This data provides detailed information on interaction patterns between European societal stakeholders and refugees. The analytical approach differentiates between changing attention patterns, illustrating whether European actors "re-allocated" cooperation towards refugees, and substitution patterns. The latter informs to which extent European actors substituted cooperative for confrontational behaviour in their interactions with refugees. Setting the scene, overall cooperation dynamics are first illustrated in an event study design. Then, a more detailed analysis investigates host societies' responsiveness to conflict pressure. Subsequently, a heterogeneity analysis sheds light on the driving societal forces behind the documented responsiveness to conflict pressure and reveals striking differences across societal stakeholders.

The remainder of this study is organised as follows: A brief review of the related literature on public attention, cooperation, and attitudes towards refugees sets the scene (Section 2). The data and methodology employed to derive cooperation patterns and conflict pressure exposure are introduced in Section 3, which includes a description of the estimation design. The main findings presented in Section 4 comprise a discussion of the event study, host societies' responsiveness to conflict pressure, and the heterogeneity analysis. Subsequently, a sensitivity analysis demonstrates the findings' robustness (Section 5). Section 6 offers a broader perspective by discussing the relevance of conflict pressure across various major conflict scenarios, as well as the congruence of real-world support activities and media records. Section 7 synthesises this research's essential findings.

2. The nexus of attention, attitudes towards (refugee) migrants, and inter-group cooperation

Interactions between host societies and migrants have received increasing levels of attention. Two main research avenues in the context of displaced individuals seeking protection abroad relate to their economic integration and to natives' attitudes or changing (political) preferences.

As a consequence of the Syrian war erupting in 2011, millions of Syrians sought protection in neighbouring countries. Despite initial worries, the economic integration of Syrians created positive demand effects and did not adversely affect native workers' labour market perspectives (Tumen, 2016; Fallah et al., 2019). This explains relatively high levels of public support in countries receiving millions of refugees. Interactions between economic stakeholders and refugees have also become more cooperative since 2015: collaborations between major corporations and other stakeholders to support refugees have risen fourfold (Yang et al., 2020). Regarding the Ukraine conflict, donations from major global corporations to support the UNHCR's emergency response amounted to more than US$200 million after one month (UNHCR, 2022a). Interactions with individuals displaced by conflict are also determined by public attitudes towards migrants or asylum-seekers. Exposure to migration or previous interactions with refugees can shape responses in transit or host countries. Having fewer prior contact experiences with migrants and facing relative economic deprivation may translate into a higher prevalence of anti-refugee or anti-immigrant attitudes (Albada et al., 2021). Higher levels of exposure to transit migration across the Balkan between 2010 and 2016 led natives to question immigrants' contribution to society and display worries about political stability (Ajzenman et al., 2022).

European societies show clear preferences regarding who is considered to be worthy of support: It is those asylum-seekers perceived to be easily integrated and who are deemed particularly vulnerable (Bansak et al., 2016) or who seek protection due to war (Von Hermanni and Neumann, 2019). Support for refugees, such as favouring less restrictive asylum policies or higher hosting capacities, is a consequence of perceived threats, e.g. concerns about cultural differences or ensuing financial strains (Landmann et al., 2019). Eventually, a low degree of (cultural) familiarity with refugee groups translates into stronger preference shifts of the electorate (Fisunoglu and Sert, 2018; Altindag and Kaushal, 2021). Moreover, a large influx of asylum-seekers from culturally more different countries of origin led to substantial electoral gains for parties on the right of the political spectrum across Europe (Vasilakis, 2017; Dinas et al., 2019). This electoral effect is mitigated in case of continued contact with asylum-seekers at the local level (Steinmayr, 2021).

This suggests that societies form distinct support level preferences conditional on the origin of displaced individuals. If political decision-makers in host countries display rational anticipation, the resulting dynamic agenda representation implies that governmental actors follow public opinion. Considering policymakers exhibit attention scarcity too, increasing the salience of an issue can be sufficient to induce agenda changes (cf. Bevan and Jennings, 2014). Whereas this process may be slow, temporary spikes of media attention can be sufficient to stipulate over-proportionately strong political attention and more immediate responses (Walgrave et al., 2017). Experimental evidence further suggests that politicians' responsiveness is not primarily due to an information effect but a channel effect — the information content matters less than the fact that it has been picked up by the

mass media (Sevenans, 2018). Ultimately, decisions to provide international support, e.g. in the form of disaster relief, are heavily influenced by news coverage and competing topics (Eisensee and Strömberg, 2007).

The observation that the majority of military or ethnic conflicts receive as little as three percent of conflict-related TV coverage (Hawkins, 2011) highlights a selective representation of conflict and humanitarian issues that are brought to our attention in the first place. When media attention on human rights violations intensifies, the probability that a conflict is subsequently resolved with a formal peace agreement is significantly elevated (Burgoon et al., 2015). A downside of the media's selective focus on the violent conflict phases is that "funds follow the cameras" (Jakobsen, 2000, p. 139). Humanitarian relief is directed towards well-publicised conflicts and there is the risk that short-term relief crowds out long-term conflict prevention or reconciliation projects.

Cooperation and support towards refugees is also driven by news media consumption (De Coninck, 2020). Regular viewers of commercial broadcast networks are less likely to display positive attitudes towards refugees compared to consumers of public broadcasters or quality newspapers. Moreover, increased coverage of migration issues tends to raise the prevalence of immigration worries (Benesch et al., 2019). This illustrates a potential direct link between media cycles and societal support levels, which will differ across societal groups.

Beyond declining attention, another phenomenon explaining vanishing support comes from the compassion fade literature. In a meta-analysis, Butts et al. (2019) conceptualise how victim group size negatively impacts helping intent and behaviour by curtailing motivating factors, such as empathic concern, perceived impact, and anticipated positive affect. With more displaced individuals arriving, support levels decline due to the expected diminishing "per victim" impact and deteriorating anticipated positive affect. The latter results from a trade-off between feeling more positive and worrying more about the increasing costs of helping more individuals. The development of empathic concern or sympathy for a victim, however, benefits from attentional focus (Dickert and Slovic, 2009): any "distractor victim" lowers sympathy judgements and increases response time. If individuals are informed about their over-proportionate focus on identifiable victims and more deliberate donation choices are triggered, they react — yet instead of generating additional sympathy for the (more anonymous) group, they care less about the single person in need (Small et al., 2007). Another related aspect of a fading willingness to help can be found in the proportion dominance effect (Erlandsson et al., 2014), which would manifest in the context of providing support to displaced individuals: In the beginning, a certain aid level could ameliorate the situation of 100,000 out of 200,000 refugees, and the willingness to help is high. When the numbers of refugees go up to 2 million, yet support resources remain constant, the proportion of individuals one can help diminishes drastically — and so does the motivation to help. Cultural norms and values may exert mediating effects on the emergence of compassion fade (Kogut et al., 2015). Individuals from more collectivist societies are less likely to lower their willingness to help when the group size of those in need increases.

Ultimately, with increasing numbers of displaced individuals over time, the compassion fade effect may complement declining support levels originating from issue fatigue, which relates to the group's presence in the news (Song et al., 2017; Gurr and Metag, 2021). To counterbalance such strong effects diluting societal stakeholders' support inclination, one can expect that substantial offsetting forces will have to unfold.

3. Data and methodology

3.1. Establishing societal support for refugees based on media records

Societal dynamics and public attention regarding a certain topic are fleeting. If societal support is related to a topic's implicit relevance, e.g. reflected by its salience in the public discourse, interaction patterns between potential providers and recipients of support may change swiftly. To investigate such interaction dynamics in a cross-country setting, and to account for quickly changing politico-economic conditions, a comprehensive database on events discussed in the public realm is required.

3.1.1. Data on interactions with refugees

The Global Database of Events, Language, and Tone (GDELT v2.0, www.gdeltproject.org) offers near-real-time insights into the global public discourse. Applying text-mining algorithms to media output published in major international or local media outlets in 100 languages, reported events are categorised along numerous characteristics (Leetaru and Schrodt, 2013). Event features, such as the involved primary and secondary actors, their country affiliation, the type of interaction, and the place and time an event took place are used to determine unique events. Employing "one-a-day" filtering, the GDELT-algorithm eliminates event duplicates resulting from reports in multiple sources or repeated reports on the same event over time. An important outcome of this algorithmic processing is that the derived event records are defined by the characteristics of the event and not the reporting entity.

Eventually, this allows us to evaluate daily interaction dynamics. Information on the primary actors' country affiliation is used to determine country-specific patterns of interactions, irrespective of where or by whom the event has been initially reported.[1] Interactions with displaced individuals are identified whenever the secondary actor has been assigned the type *refugee*. This GDELT-classification is based on a broad definition that includes all geographically displaced individuals seeking protection, irrespective of any formally recognised refugee status, and institutions dedicated to human migration and relocation issues.

Using information on the nature of documented interactions of European actors with refugees, we can evaluate how support has increased and waned over time. This is possible since the GDELT classification algorithms apply the CAMEO coding scheme (Schrodt,

[1] In those cases without a clear country affiliation of the primary actor, the country where the reported event occurred is used.

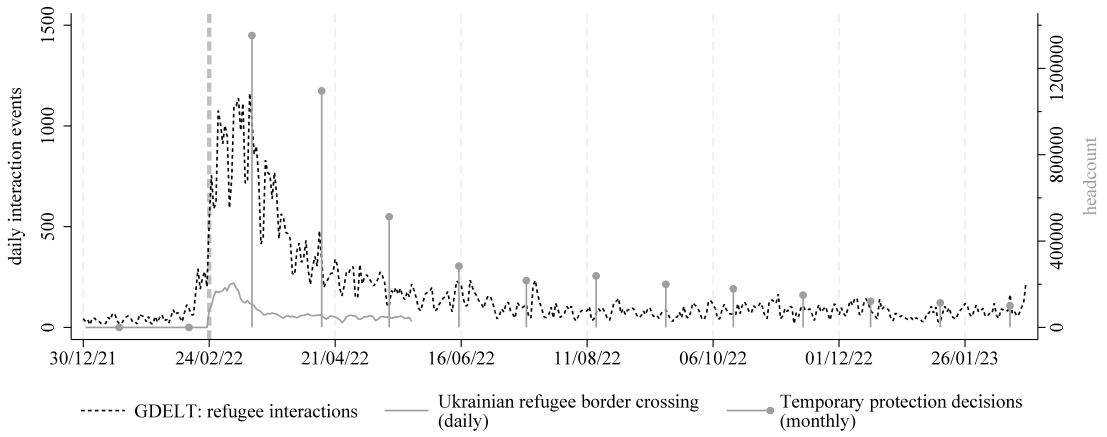

Fig. 1. Refugee presence in the news, Ukrainian refugees at borders, and in host countries.
Note: GDELT refugee interactions reflect the daily number of interactions of a primary actor affiliated with one of 39 European countries and a secondary actor, classified as refugee. Ukrainian refugee border crossings are obtained from UNHCR (2022b); Temporary protection decision for Ukrainians originate from Eurostat (2023).

2012), which assigns the four broad categories of *verbal or material cooperation* and *verbal or material conflict* to interactions documented in news items.[2] Using verb dictionaries to evaluate the news items' sentences, various verbs (and semantic components) with a related interpretation can be grouped: An interaction where a primary actor (being a sentence's subject) is willing to provide support, promises to do something or agrees to share, would be classified as intent to cooperate. A news item describing that "Turkey will allow up to 13,000 Turkish Kurd refugees who have lived in Iraq for more than a decade to return home as part of an UN-brokered deal" will be categorised as verbal cooperation between the Turkish government (primary actor) and a refugee group (secondary actor).

Within the 60-week time horizon investigated in this study (eight weeks before and 52 weeks after the war began on 24/02/2022), 16.7 million events with a European primary actor have been recorded. For 29% of these cases, a secondary actor has been identified as the target of an interaction event. 70,274 times the secondary actor was categorised as refugee.

Before the outbreak of large-scale hostilities in Ukraine, hardly any interactions with refugees were documented for societal stakeholders across 39 European countries (Fig. 1).[3] Before 24/02/2022, the daily average of interaction events across Europe was 63; in the first three months of the conflict, the daily number of recorded interactions averaged 481. The highest daily interaction numbers fall into the first month of the conflict, coinciding with the highest numbers of recorded Ukrainian refugee border crossings and temporary protection decisions for Ukrainians across the European Union. Since then, the prominence of interactions with displaced individuals has declined in the public discourse.

3.1.2. Quantifying the emergence of cooperation patterns

Within the context of this research, cooperation events with refugees as recipients are interpreted as providing some form of support to displaced individuals. During the observation period, 65.9% (22.8%) of all documented interaction events targeting refugees were verbal (material) cooperation. Only 6.5% (4.8%) were classified as verbal (material) conflict.[4]

To provide a nuanced framework and to account for an uneven coverage of events across time and countries, cooperation patterns are measured in the context of the wider news landscape. Based on two alternative within-day-and-country standardisation procedures of the documented interaction events, two concepts representing interaction patterns are devised, namely *attention probability* and *substitution probability*.

The concept of attention probability $P(REF|I)$ informs about how likely an event of a certain interaction mode I is directed at refugees (REF). This measure helps to understand who the recipients of cooperative interactions are. Whenever the measure related to cooperative interactions $P(REF|Coop)$ increases, cooperation is re-directed from any other secondary actor to refugees. We can thus conclude that refugees receive relatively more attention while another group experiences declining attention.

Taking the perspective of the secondary actor, the concept of substitution probability $P(I|REF)$ reflects the probability that an interaction with refugees is of a certain interaction mode.[5] Most importantly, $P(Coop|REF)$ tells us if refugees became more or less likely to experience cooperative behaviour, and thus whether primary actors substituted cooperative for confrontational interactions.

[2] CAMEO is the acronym for Conflict and Mediation Event Observations.

[3] All European countries but Turkey, Iceland, Andorra, and Liechtenstein are included.

[4] A more detailed coding scheme with 20 subcategories allows the investigation of qualitative differences in cooperative interactions. This enables a heterogeneity analysis focusing on material cooperation where humanitarian aid has been provided.

[5] Across the four broad groups (verbal/material cooperation/conflict), these probabilities sum up to one.

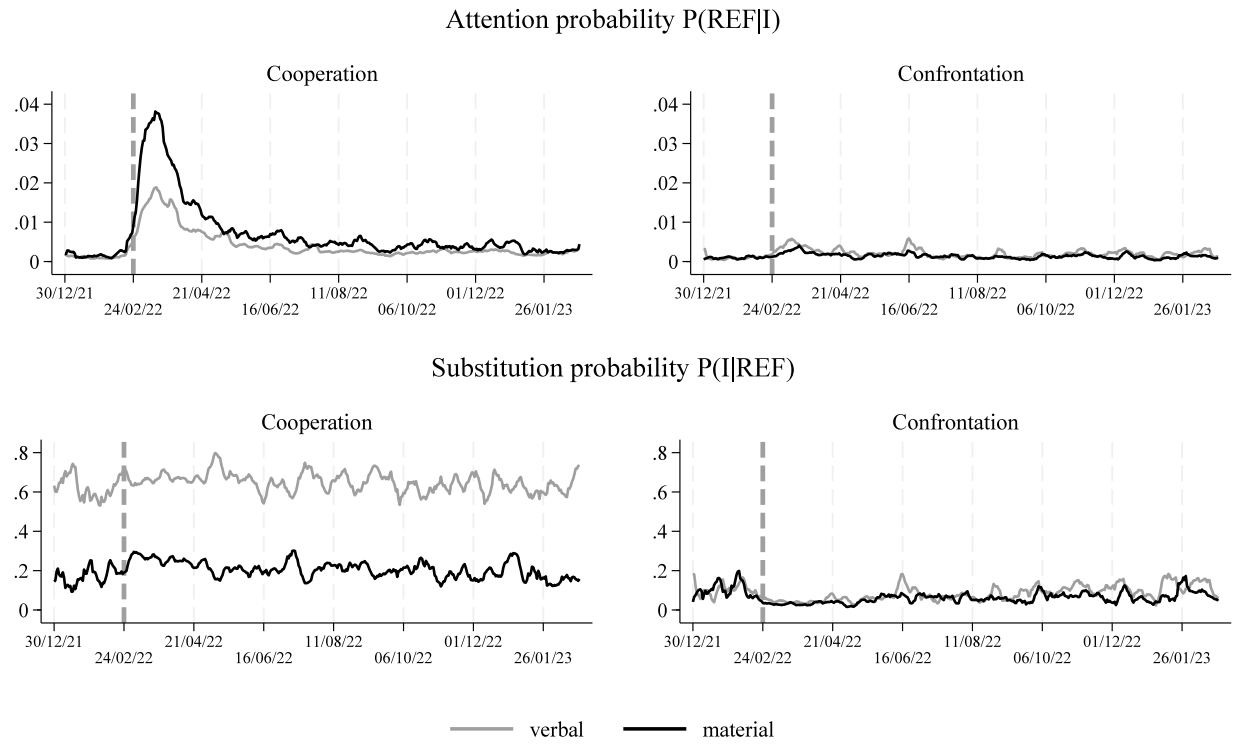

Fig. 2. Attention and substitution probabilities for interactions with refugees. *Note:* Seven-day moving averages are depicted for 39 European countries.

Both concepts account for variations in terms of news cycles over time, differences in the size of the news sector, and global news representation of a country. While attention probability can be seen as a concept representing the quantitative dimension of refugees' presence in the public discourse, substitution probability reflects the qualitative dimension of interactions. Using GDELT event records, and the respective derived shares of cooperative or confrontational interaction events, this research offers a glimpse on the underlying attention and substitution probabilities. Taken together, these measures provide a nuanced picture regarding the likely emergence of refugee-targeted cooperation patterns across Europe.

The steep increase in interactions with refugees from 24/02/2022 is mirrored in the interaction mode-specific attention probability (Fig. 2, upper panels). Before the outbreak of open hostilities in Ukraine, hardly any material cooperation events were directed at refugees. Three weeks into the conflict, almost four (two) percent of all documented instances of material (verbal) cooperation were targeting refugees. This mirrored a surging public interest related to the war in Ukraine: In mid to late April 2022, 39% of Europeans followed news about Ukraine several times a day (European Commission, 2020). Regarding cooperative interaction patterns documented in the media, attention was clearly redirected towards refugees. After 12 weeks, this attention has shrunk notably — only one percent of material cooperation cases addressed refugees.

Taking the refugee perspective (Fig. 2, lower panels), three main findings emerge. Both verbal and material confrontational events became less likely in the first 12 weeks after conflict broke out. Yet despite the fact that material cooperation probability increased from 20 to 30 percent in late February, the dominant interaction form remained verbal cooperation. Most of the substitution, however, took place in the cooperative domain — whenever verbal cooperation probability rises, a decline in material cooperation probability of almost identical magnitude can be observed.

3.2. Evaluating indirect exposure to conflict: Conflict pressure

3.2.1. Data on conflict intensity

For the purpose of this research, suitable data on conflict intensity has to vary across time and space. Only this allows evaluating how various levels of indirect exposure may alter levels of support. To allow a broad perspective on various features of violent conflict, two main data sources are used.

First, a special data collection within the *Armed Conflict Location & Event Data Project* (ACLED, Raleigh et al., 2010) provides an overview of conflict incidents in Ukraine since May 2019. Recorded incidents have been verified ex-post, and for each, the main actors, the date and location, as well as the type of conflict incident have been identified. In the case of Ukraine, 94% of incidents during the 60-week study period are classified as *battles* or *explosions/remote violence*; the latter is almost exclusively due to remote attacks (via shelling, artillery or missiles). Over 95% of all documented conflict incidents involved as a primary actor military forces

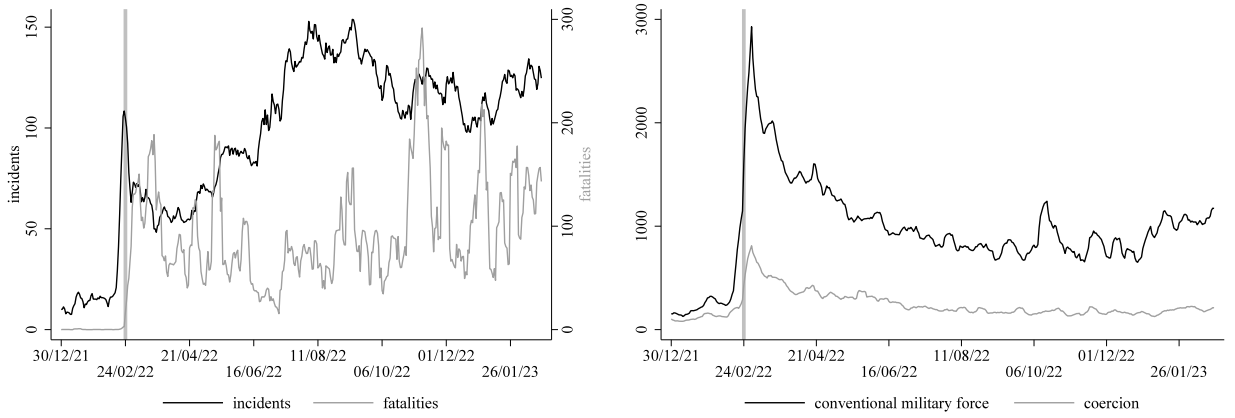

Fig. 3. Conflict dynamics in Ukraine.
Note: Seven day moving averages are displayed. The spike in ACLED conflict incidents before 24/02/2022 originates from fighting between Ukrainian forces and armed forces of "Novorossiya".

of Ukraine, Russia, or "Novarossiya". To reflect the military nature of the conflict under scrutiny, measures of conflict intensity are defined as follows: the primary actor is any of the three military forces, and the event is either a battle, an explosion, or involves violence against civilians.

Aggregate daily conflict indicators reflect the escalation of the previously simmering conflict in late February 2022 (Fig. 3, left panel). The number of conflict incidents surged, and fatalities occurred regularly. Eventually, the employed ACLED-based measures of conflict intensity represent a detailed ex-post record of the developments in Ukraine that allows a differentiation between incidents and fatalities, related to either violent incidents or military activities involving Ukrainian or Russian military forces.

The second data source employed to derive measures of conflict intensity is the GDELT data, i.e. the same used to evaluate cooperation patterns. This is possible since it documents interaction events that are categorised as material conflict, relate to a location in Ukraine, and involve actors affiliated with either Russia or Ukraine. Within the 60-week study period, relevant conflict interactions comprised demonstrations of military or police power (4.4%), reduction of relations (7.2%), (un-) conventional violence (11.9%), coercion (15%), and conventional military force (61.6%). To obtain a measure of severe conflict, the derived GDELT conflict intensity measures focus on events relating to the application of military force or coercion. Compared to the ACLED conflict data, location records are less precise.

Despite this caveat in terms of spatial precision, the GDELT conflict intensity measures capture the escalation of a smouldering conflict into full-scale military conflict (Fig. 3, right panel). More importantly, these measures based on global media coverage represent a snapshot of the salience of conflict intensity across countries. Thus they depict a representation of the underlying conflict in the public discourse in Europe. This salience, in turn, is an important factor influencing the provision of international relief (Eisensee and Strömberg, 2007) and may therefore translate into changing levels of support towards displaced individuals.

3.2.2. Measuring conflict pressure abroad

Outbreaks of severe violence or conflict can be expected to lead to more or less immediate responses by affected individuals. One is to leave and move, either temporarily or permanently, to a distant and thus less risky area. Some may value the opportunity of a quick return, while others may focus on reducing the risk to their health and well-being. This implies that a population of leavers will distribute over a certain *escape route*, which connects the origin and the most distant destination. In the context of a conflict restricted to one country, this distribution can take on various forms: A high probability mass close to the origin represents internally displaced persons (IDP); probability mass at intermediate or larger distances is indicative of displaced individuals seeking refuge in neighbouring or more remote countries, respectively. Without insurmountable impediments restricting available escape routes, displaced individuals can choose to depart in any direction. Hence, the overall population of displaced individuals will be dispersed over an area that increases exponentially in distance. If the overall area is divided into smaller units, the density per unit will decrease with distance (Appendix A, Figure A.1). The further away from the conflict, the fewer displaced individuals would be expected. For these destinations, the pressure due to the underlying conflict incident, such as dealing with displaced individuals, is less pronounced.

This simple concept of population dispersion can be extended to account for dynamic conflict scenarios, as observed in Ukraine, where intensity and location vary on a daily basis. In the two months before the outbreak of full-scale hostilities, skirmishes between Ukrainian and irregular forces occurred in the eastern regions (Donetsk and Luhansk). The first week of open warfare saw a spread of conflict and violence to most parts of Ukraine (Appendix A, Figure A.2), including the immediate vicinity of neighbouring countries in the west. Over the course of the following three months, however, the focus of the conflict shifted to the eastern half of Ukraine.

Using this information on dynamic conflict locations in Ukraine, conflict pressure levels across European destinations can be derived. To ensure a consistent approach, a hexagon grid is superimposed onto Europe.[6] This allows to construct country-specific

aggregates (e.g. minimum, maximum, or average conflict pressure) that reflect the conditions in all hexagons falling within a country's boundaries. Such an approach is appropriate as many European countries feature decentralised decision-making processes where important political outcomes and initiatives are determined outside a singular focal point, such as the capital.[7]

For each destination hexagon outside Ukraine, conflict pressure (CP) is calculated according to the following steps: First, daily conflict intensity measures ($C_{t,U}$) are calculated for each hexagon in Ukraine. Based on bilateral distances ($d_{U,D}$), pairing all hexagons in Ukraine with all hexagons in potential destination countries, we then create a weighting matrix where each element represents a bilateral weight $w_{U,D} = 1-(d_{U,D}/d_{max})^{\delta}$. The decay parameter δ integrates the concept of decreasing expected densities of displaced individuals in destination hexagons, depending on their distance to a conflict hexagon. Combining conflict intensity measures in Ukraine and weighting factors, we can derive overall conflict pressure for each destination hexagon as $CP_{t,D} = \sum_{u=1}^{U} w_{u,D} C_{t,u}$. Finally, this measure is rescaled, using its maximum value, to be bound between zero and one. This facilitates the comparability of conflict pressure measures based on various underlying conflict indicators.

The proposed conflict pressure measures are advantageous for two reasons: First, they implicitly model plausible conflict-related population displacement patterns. Second, instead of assuming that indirect exposure to conflict is solely driven by the closest incident or the situation in one prominent location (e.g. the political or geographical centre), the derived conflict pressure measures account for the overall spatial pattern of conflict. An appropriate analogy to describe conflict pressure is that of percolating ripples originating from multiple stones being thrown into a pond. Any given point (destination) on the pond's surface (Europe) will exhibit a complex and distinct pattern of overlaying ripples (indirect conflict exposure). Such complex patterns of indirect exposure can be realistically quantified by the proposed conflict pressure concept, as can be demonstrated for a fictitious scenario with multiple conflict incidents (Appendix A, Figure A.3): Destination areas abroad that are at an identical distance to the conflict country and the closest conflict incident may feature rather different CP levels — depending on the geographic patterns of conflict incidents and the ensuing population displacement.

Turning to observed outcomes in the real world, we see that conflict pressure dynamics across Europe mirror the conflict dynamics within Ukraine (Appendix A, Figure A.4): Conflict pressure used to be highest in Russian hexagons, adjacent to the two eastern regions of Donetsk and Luhansk. In the days after 24/02/2022, when multiple conflict hotspots across Ukraine erupted, the highest conflict pressure was observed for hexagons in all neighbouring countries. Similarly, the shift of fighting back to eastern Ukraine in the second month is captured, as is the overall higher intensity of conflict.

3.3. Estimation design

Changing patterns of societal support towards displaced individuals on the country-level are evaluated based on balanced panels. With 39 European countries (C) included, and a time horizon spanning 8 weeks before the war began and 52 thereafter (equal to 420 days, T), the aggregate baseline sample amounts to 16,380 observations. When investigating the driving forces behind any observed support dynamics, the applied subgroup analyses draw upon seven main societal and two additional stakeholder groups (G), yielding a maximum sample size of 147,420.[8]

Outcome variables are the above-introduced cooperation measures: Cooperation attention, $P_{c,t}(REF|Coop)$, represents the probability that refugees are the target of cooperative interactions. If it increases, the refugee group receives relatively more attention than other groups. Cooperation substitution, $P_{c,t}(Coop|REF)$, reflects the refugee perspective. If this measure increases, we know that refugees become more likely to experience cooperative interactions. Eventually, stakeholders in host societies substituted one specific cooperation form for another or confrontational behaviour. Attention and substitution dynamics will be examined across four different cooperation forms: GDELT interactions which are categorised as either verbal or material cooperation (VMCoop), verbal cooperation events (VCoop), material cooperation events (MCoop), and the provision of aid (AidCoop) which is a subcategory of material cooperation events.

Across the main analyses, two types of models will be estimated. The first is an event study design, where cooperation probabilities are estimated with a focus on period indicators. This model allows to investigate the evolution of cooperation dynamics over time. Its general form is

$$P_{c,t,g}(Coop) = \beta_0 + \sum_{g=1}^{G}\sum_{w=1}^{W} \beta_{w,g} post_{w,g,t} + \mu_c + \mu_g + \varepsilon_{c,t,g} \tag{1}$$

In its simplest form ($W = 1$, $G = 1$), it amounts to a comparison of pre and post-conflict outbreak cooperation probabilities on the country level. Weekly dynamics over the full analytical horizon can be evaluated by incorporating the full range of week-specific indicators. Group-specific cooperation dynamics can be assessed by introducing more than one actor group. All estimations include country fixed effects (μ_c), and group fixed effects (μ_g) in the case of stakeholder-specific models.

The second type comprises conflict pressure (CP) models, where the focus rests on identifying host societies' or stakeholders' responsiveness to conflict pressure. The basic conflict pressure model is given by

$$P_{c,t,g}(Coop) = \beta_0 + \sum_{g=1}^{G} \beta_g group_g \times CP_{c,t} + \mathbf{X}\boldsymbol{\gamma} + \mu_c + \mu_g + \mu_t + \varepsilon_{c,t,g} \tag{2}$$

[6] The hexagon structure is based on a 0.5-degree grid. At the equator, this would be close to a 50-kilometre diameter.

[7] Due to data scarcity regarding local cooperation and disaggregated control variables, focusing solely on the sub-national analysis is not practical.

[8] The two additional groups are a residual group, comprising known actors with low interaction frequency, and one for unknown actors.

All conflict pressure models feature day-fixed effects (μ_t) to absorb any day-specific shocks impacting all countries. Country-fixed effects and control variables reflecting politico-economic conditions allow absorbing variation on the country level. The vector of control variables (X) contains the first lags of the following variables: monthly harmonised consumer price indices and unemployment rates, quarterly GDP per capita and government expenditure shares, as well as a monthly median voter indicator. These variables control for potential economic hardships and compensating government measures (retrieved from the Eurostat (2023) database), and the political preferences of the electorate derived based on Eurobarometer data (European Commission, 2022). Further details and descriptive statistics can be found in Table A.1 (Appendix A).

The estimate β_g reveals how the emergence of a certain cooperation pattern became more or less likely in response to changing conflict pressure, either on the societal or the group level. In the case of cooperation substitution, for instance, it provides an estimate for the changing probability that refugees will experience cooperation in response to an incremental conflict pressure increase.[9]

Further relevant details regarding specific variables, assumptions or model specifications are provided in the respective discussion of event study results (Section 4.1), the analysis of aggregate conflict pressure dynamics on the societal level (Section 4.2) or the stakeholder-specific analyses (Section 4.3). Important sensitivity checks are presented in Section 5, which addresses issues around the analysis' geographic aggregation, the influence of trends in the public discourse, and the conditionality of support in light of potential capacity constraints. Furthermore, a detailed permutation exercise documents the main findings' robustness regarding changing parameters and assumptions used in the derivation of conflict pressure measures, as well as the modelled response delay (Appendix B).[10] Further heterogeneity analyses shed light on host-specific effects and contrast stakeholder-specific cooperation decline with offsetting conflict pressure (Appendix C).

4. Main results

4.1. Event study: Cooperation dynamics over time

Before introducing conflict pressure as an essential determinant of cooperation patterns, the evolution of the latter over time is investigated. The event study design provides a direct overview of cooperation dynamics towards refugees in the aftermath of 24/02/2022 and accounts for unobserved variation on the country level. The latter may manifest in differential political or societal reactions to the emerging situation.

Over the 52 weeks after the outbreak of open hostilities, refugees received, on average, a 0.36 percentage point (pp) higher attention when it comes to verbal cooperation as compared to the eight weeks before (Table 1). This amounts to a twofold increase compared to the pre-conflict period. Material cooperation attention rose by 0.65 pp above the initial 0.24 per cent. Eventually, this shifting attention is also reflected in the aggregate: Cooperative interactions of any form were 0.4 pp more frequently addressing refugee groups.

Table 1
Response dynamics once conflict broke out.

	Attention			Substitution		
	VCoop	MCoop	VMCoop	VCoop	MCoop	VMCoop
Post 24/02	0.0036***	0.0065***	0.0041***	0.1250***	0.0404***	0.1654***
	(0.0002)	(0.0006)	(0.0002)	(0.0081)	(0.0048)	(0.0089)
pre-24/02 coop.	0.0016	0.0024	0.0017	0.2182	0.0623	0.2805

*** p<0.01, ** p<0.05, * p<0.1
Note: Time horizon covers 30/12/2021 - 22/02/2023. All estimations contain country FE. Sample size is 16,380.

We also observe a notable degree of cooperation substitution once the conflict had broken out: Refugees became 16.5 pp more likely to experience verbal or material cooperation (compared to 28% before). Separating the two cooperation forms, the main source of this shift is a substitution towards verbal cooperation, which became 12.5 pp more likely. Material cooperation, on the other hand, increased by 4 pp.

Introducing week indicators into the event study design, dynamics over time can be teased out in more detail (Appendix A, Figure A.5). After the peak of attention in the initial weeks, when verbal and material cooperation attention was elevated by about 2pp, a sizeable decline emerged from week five onward. After 18 weeks, attention levels are often indistinguishable from their pre-war levels. For cooperation substitution, a similar trend delayed by about two weeks can be established. After the initial peak (verbal and material cooperation substitution surged by almost 40 pp), weekly cooperation probabilities went down to the previous level from the fifth month of active conflict onward. The public's attention and willingness to engage more frequently in cooperative interactions with refugees seem to be finite resources. This applies even in the case of a severe conflict unfolding in close proximity.

[9] Since the dependent variables are not binary, the estimated models are not (linear) probability models in a narrow sense. Yet they are shares, bound between zero and one, that were derived by creating day-by-country aggregates based on binary cooperation indicators for hundreds of thousands of recorded interactions. Inevitably, the derived estimates from a linear model using country-by-day shares are identical to those from a linear probability model, using a binary cooperation indicator and appropriate weights. Thus, it seems justifiable to apply the same interpretation of estimates, i.e. they indicate how much an incremental change in the variable of interest (conflict pressure) changes the probability of observing a positive outcome (cooperative interaction).

[10] These auxiliary sensitivity checks further account for specific types or the severity of conflict, the precision of conflict location records, and the assignment of primary actors' country-affiliations.

4.2. Cooperation and conflict pressure

4.2.1. Average effects of conflict pressure on the societal level

Within the initial analysis, societal responsiveness is evaluated across various conflict pressure concepts. All exploit spatio-temporal variation in conflict locations to model likely displacement patterns more realistically, as described in Section 3.2.2. Two are based on ACLED conflict data, offering a validated ex-post conflict assessment regarding the occurrence of violent altercations and fatalities. The other two draw upon GDELT conflict events, depicting the military situation as seen by an interested media observer at the time.

Average effects of conflict pressure are estimated according to Eq. (2) without any differentiation between societal groups. Conflict pressure measures enter the model lagged by one day. Results thus inform how cooperation patterns in potential destination countries change in response to conflict pressure dynamics on the previous day. This approach implicitly assumes a short response time, yet still allows for the emergence of considerate responses.[11] Throughout the main analyses, all conflict pressure measures are based on a linear distance decay parameter ($\delta = 1$) and correspond to the daily average of conflict pressure measured across all hexagons within a country (mean aggregation definition).[12]

In the interest of interpretability and comparability, conflict pressure has been re-scaled to be bound between zero and one. A conflict pressure of zero (one) corresponds to the lowest (highest) overall hexagon-specific value across all countries and the complete time horizon. Due to the rescaling, estimates for conflict pressure measures have a simple interpretation: They estimate the overall effect of going from no conflict pressure to the maximum observed level. In reality, conflict dynamics can be assumed to change more moderately. Such incremental changes are henceforth labelled as *point* changes in conflict pressure.

Table 2
Overall cooperation patterns and previous day's conflict pressure.

CP concept	ACLED				GDELT			
	Incidents		Fatalities		Coercion		Mil. Force	
	Attention							
CP_{i-1}	0.0125***	0.0175***	0.0282***	0.0270***	0.0482***	0.0452***	0.0269***	0.0336***
	(0.0026)	(0.0031)	(0.0035)	(0.0032)	(0.0043)	(0.0039)	(0.0026)	(0.0030)
	Substitution							
CP_{i-1}	0.0054	−0.0845	0.0743	0.0789	0.1158	0.2476**	−0.0498	−0.0540
	(0.1029)	(0.1225)	(0.0822)	(0.0940)	(0.1104)	(0.1249)	(0.1027)	(0.1201)
N	16,341	12,319	16,341	12,319	16,341	12,319	16,341	12,319
Controls	no	yes	no	yes	no	yes	no	yes

*** p<0.01, ** p<0.05, * p<0.1

Note: All estimations contain country and day FE. Controls are the first lags of the monthly consumer price index and unemployment rates, quarterly GDP per capita and government expenditure share, and monthly indicator of a potential median voter leaning to the right. Conflict pressure measures are country-specific hexagon averages, based on a decay parameter $\delta = 1$, and lagged by one day.

The ACLED-based conflict pressure measures, accounting for any incident or only fatality incidents, suggest a strong degree of responsiveness to a one-point CP increase: Refugees receive more attention, i.e. become 0.018 to 0.027 pp more likely to be the target of verbal or material cooperation over the complete observation horizon (Table 2, upper panel).[13] With an average cooperation attention of 0.53% over the complete time horizon, this amounts to a relative increase of approximately 5% for an incremental conflict pressure rise. Conflict pressure measures drawing on more salient GDELT conflict events involving Russian and Ukrainian forces, who either applied coercion or military force, produce considerably larger estimates.[14] If conflict pressure due to the application of military force or coercion increased by one point, attention probability rose by 0.03 pp or 0.05 pp on the following day.

Most interestingly, only one conflict pressure measure is significantly related to the probability that host societies substitute verbal or material cooperation for confrontational behaviour when interacting with refugees (Table 2, lower panel). If conflict pressure based on coercive activities in Ukraine increases by one point, refugees are 0.25 pp more likely to experience verbal or material cooperation in European host countries.

This analysis on the societal level generates two main insights: There is clear evidence that stakeholders across Europe redirect their attention from other recipients towards refugee groups when conflict pressure rises. On the other hand, this degree of responsiveness is not necessarily mirrored when it comes to substituting cooperative behaviour for confrontational interaction forms.

[11] It also addresses concerns of contemporary reverse causality, e.g. when higher cooperation towards refugees abroad could motivate more Ukrainians to leave. This could alter conflict intensity as the number of potential direct participants would be affected. In reality, however, severely restricted travel opportunities (e.g. the complete closure of Ukrainian airspace to civilian transport) prevent any contemporary feedback loop that introduces reverse causality.

[12] Alternative decay parameters, aggregation definitions and response dynamics (one and two-week delay) are explored in a permutation exercise presented in Appendix B.

[13] Even the smallest responsiveness estimates related to ACLED and GDELT-based complex CP measures are notably higher than those for a naive static measure, which does not account for realistic displacement patterns (Appendix A, Table A.2).

[14] This effect could be partially driven by correlated measurement error in the dependent variable and the CP measure. GDELT military force CP estimates, however, are not too distinct from those related to ACLED fatality measures.

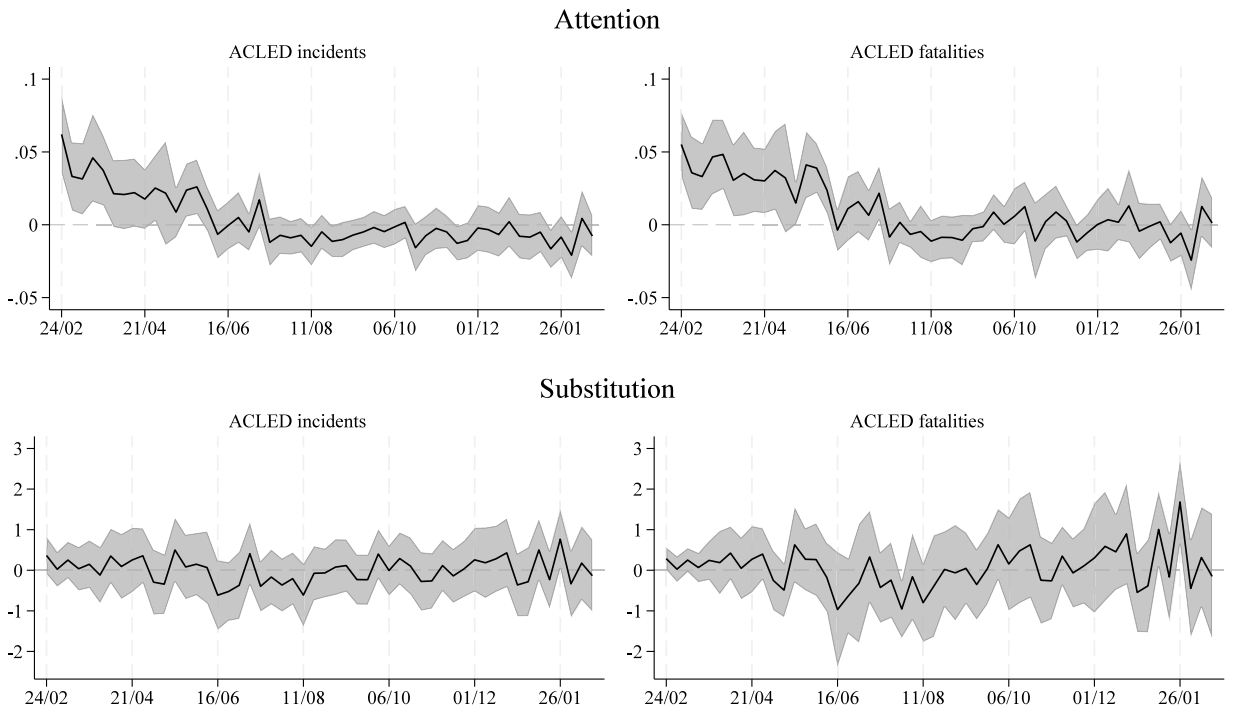

Fig. 4. Dynamic effects of conflict pressure (ACLED-based) on verbal or material cooperation probabilities.
Note: Vertical axes show the percentage effects of a one-point increase in the average conflict pressure (0.1 = 0.1%), lagged by one day. Results are based on a modified version of Eq. (2) which includes a complete set of interactions between conflict pressure and weekly indicators. 95% confidence intervals are displayed. The corresponding results for GDELT-based CP measure can be found in Figure A.6 (Appendix A).

However, these aggregate results on the country level may obscure heterogeneous responses of different groups within European societies, for instance, if various stakeholders have diverging agendas regarding refugees.

4.2.2. Dynamic effects of conflict pressure

Both ACLED and GDELT-based conflict pressure measures exploit variation in conflict intensity over time and space. Yet, the influence of conflict pressure exposure itself may vary over time. European societies could not just display a declining willingness to cooperate in their interactions with refugees (cf. Appendix A, Figure A.5) but their responsiveness to conflict pressure may also vanish as time passes. This could be interpreted as a manifestation of issue fatigue (Gurr and Metag, 2021).

In the case of shifting attention patterns (Fig. 4, upper panels), CP measures display significant weekly estimates until approximately four months into the conflict. If conflict pressure increased by one standard deviation in this period, cooperation attention would rise by 85 to 140% relative to its overall average.[15] Whereas CP estimates seem to diminish slightly over time, their decline over time is less steep than the gradient of the decaying cooperation probabilities (cf. Appendix A, Figure A.5). Surging conflict has thus the potential to dampen attention decline on the societal level – at least for a while.

Insignificant aggregate conflict pressure estimates for cooperation substitution are mirrored by insignificant weekly estimates (Fig. 4, lower panels). Therefore, we can conclude that the absence of effects on the societal level is not due to any offsetting decline in responsiveness at a later stage. In contrast to attention shifts, cooperation substitution – if it exists at all – is not a societal phenomenon but a stakeholder-specific occurrence.

Taken together, the analysis of dynamic CP effects suggests that heightened attention levels may be largely driven by the public discourse's sensitivity to conflict pressure during the first few months of a military conflict. This holds for CP evaluated based on expert-based conflict incident classifications (ACLED) and when relying on conflict incidents entering the public discourse more saliently (GDELT, cf. Appendix A, Figure A.6).[16]

[15] Significant weekly CP estimates vary typically between 0.03 and 0.05. Using CP measures' standard deviation (around 15 points) and the average attention probability across the complete time horizon (0.53), the relative effects are derived as $\beta \times sd(CP)/mean(CP)$.

[16] Such a high degree of similarity for rather distinct conflict identification approaches also alleviates concerns regarding potential measurement issues when both the outcome and a variable of interest are derived from the same GDELT variables.

4.3. Stakeholder-specific effects of conflict pressure

Societies comprise various groups, which display distinct positions regarding contemporary challenges. Their agendas may also differ due to their function, e.g. law enforcement or non-governmental organisations. Differentiating between short and medium-term, the potential existence of group-specific conflict pressure responsiveness is examined in the context of verbal or material cooperation and a relevant subcategory of material cooperation, namely the provision of aid. The evaluated stakeholder categories comprise the following seven major groups of actors in a host country: government, state (legislature, judiciary), economy (business and multinational companies), society (civilians, elites, opposition), forces (police and military), services (education, health care, labour, media), as well as inter- and nongovernmental organisations (IGO & NGO).[17]

4.3.1. Group-specific responsiveness and cooperation patterns

The major societal stakeholder groups tend to display highly significant shifts in their attention towards refugees when conflict pressure is on the rise. Group-specific responsiveness estimates are mostly invariant across the various conflict pressure measures (Appendix A, Figure A.7, top panels). The most pronounced attention shifts emerge for government actors, IGOs & NGOs, or those from civil society (civilians, elites, opposition).

If conflict pressure increases by one point during the first four months of conflict, governments become 0.02 to 0.03 pp more likely to direct cooperative behaviour towards refugees. For stakeholders from civil society or IGOs & NGOs, the corresponding overall effects are within the range of 0.04 to 0.05 pp and 0.05 to 0.06 pp respectively. This implies that if conflict pressure were to increase by ten points, the overall effect would imply a doubling of the average attention probability. In the medium term, focusing on the 12-month post-conflict outbreak horizon, actor-specific responsiveness is diminished yet the general ranking is preserved.

A noteworthy finding emerges for cooperation substitution. On the aggregate level, conflict pressure was not associated with changing patterns of cooperation from a refugee perspective. A disaggregation by societal groups, however, reveals that a lack of responsiveness to conflict pressure for most groups is contrasted with a highly significant sensitivity of government actors (Figure A.7, bottom panels). When conflict pressure increased on the prior day, government actors substituted cooperative behaviour for confrontational behaviour: Their cooperation substitution increased by about 0.3 to 0.4 pp for each point of conflict pressure during the initial four conflict months and declined somewhat over the full 12-month horizon. There is also some evidence of stakeholders from the economy engaging in cooperation substitution during the early phase of the conflict.

4.3.2. Aid provision dynamics for major societal groups

As previous analyses demonstrated, there is a qualitative difference between the two types of cooperation probabilities: Material cooperation was more frequently redirected at refugees compared to other recipients, resulting in higher attention. Yet verbal cooperation remained the most prominent form of cooperation when interacting with refugees, as suggested by cooperation substitution patterns. Ultimately, both heightened attention and substitution patterns of any cooperation tend to fade over time. Declining verbal support may pose less of a challenge. A steadily decaying material support level, however, may have further-reaching implications. Supporting a (growing) population of displaced individuals, e.g. providing accommodation or financial assistance, over a longer time may require more enduring efforts.

To better understand how relevant material cooperation evolves, aid provision dynamics are derived for the major societal groups. Once again, a distinct heterogeneity across societal stakeholders emerges: Notably, the driving societal forces behind increasing levels of aid provided to refugees are not just government actors (Appendix A, Figure A.8). Amongst those featuring significantly elevated attention and substitution cooperation for several months, we find actors from civil society, (public) services, IGOs & NGOs, and the economy. The latter, comprising private enterprises and multinational corporations, display the strongest substitution towards aid provision. During the first five weeks, for instance, economic actors became five percentage points more likely to engage in aid provision when dealing with refugees. Interestingly, cooperation attention rebounds in the medium term only for actors from the economy.

This heightened engagement in aid provision can be partly attributed to elevated conflict pressure responsiveness. Economic actors feature a significant positive sensitivity to conflict pressure, both in the short and medium-term. Responsiveness estimates for this group are even larger than those for government actors (Fig. 5, bottom panel). Except for the ACLED fatality conflict pressure measure, a one-point CP increase translates into a 0.06 pp increased probability that economic agents' interactions with refugees are dedicated to aid provision. Eventually, it is not just governments who adjust their support levels in response to increasing levels of conflict pressure. Private enterprises seem to take on a major role as well.

[17] This aggregation accounts for the limited availability of primary actor details, as only 23% of interactions with refugees feature this information. Government actors are the most important primary actor (45.3%), followed by actors from civil society (12.2%), intergovernmental organisations (4.9%), and businesses (4.3%).

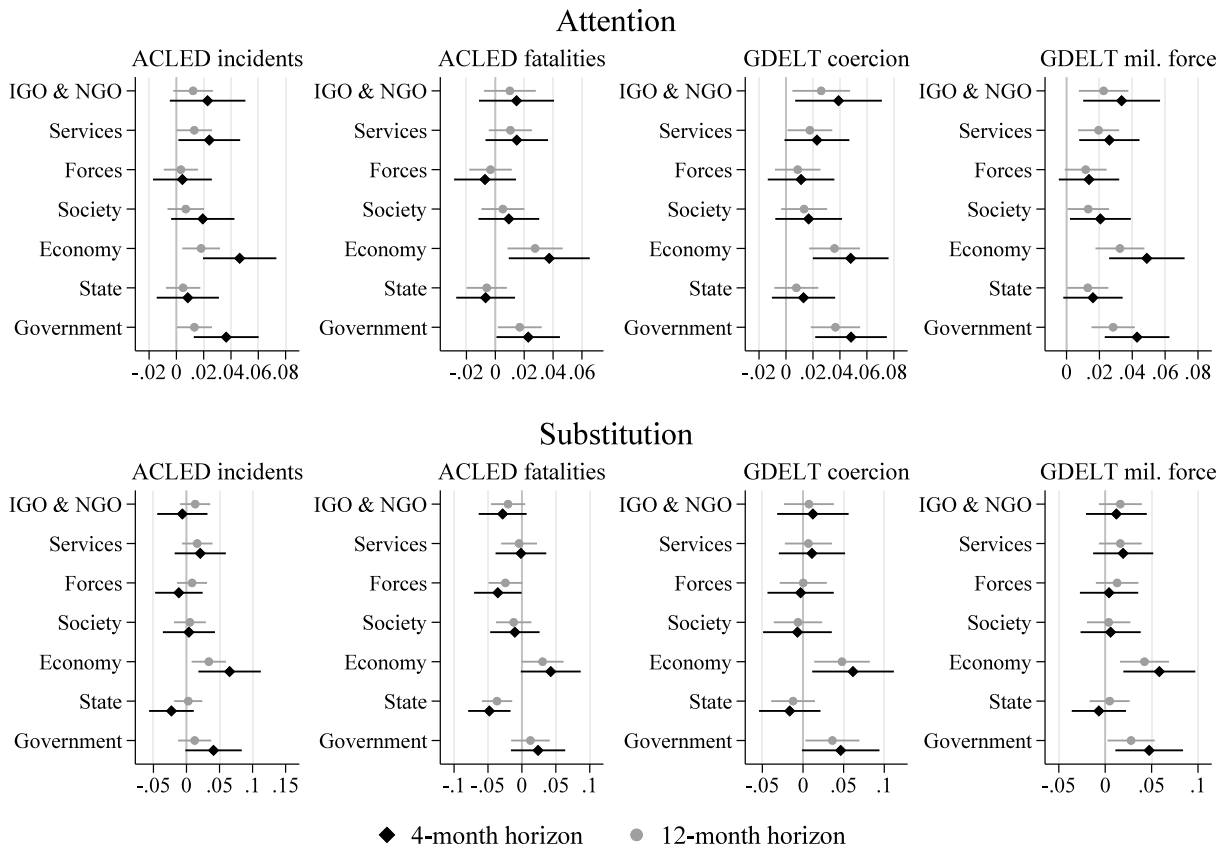

Fig. 5. Conflict pressure sensitivity of aid provision for various societal stakeholder groups.
Note: All estimates are derived from specifications with a full set of control variables, as well as country, day, and group FE. Sample sizes amount to 45,117 for the post-conflict outbreak horizon of 4 months and to 110,871 for 12 months. Stakeholder groups are classified as government, state (legislature, judiciary), economy (business and multinational companies), society (civilians, elites, opposition), forces (police and military), services (education, health care, labour, media), and inter- or nongovernmental organisations (IGO & NGO). Horizontal axes show average marginal effects (in percentage points with 0.1 = 0.1 pp) of a one-point increase in the average conflict pressure for each group, lagged by one day. 95% confidence intervals are displayed.

5. Sensitivity analysis

5.1. Alternative geographic resolution: Sub-national responses

In the main analysis, host societies' responsiveness to conflict pressure was evaluated on the aggregate level — one daily observation per country. Yet societal responses may be influenced by sub-national exposure, for instance, if a country is large or politically decentralised. While the employed aggregate conflict pressure measure reflected average exposure, and thus integrated exposure across the whole country, it may provide a distorted picture in light of hugely varying sub-national cooperation and conflict pressure responsiveness patterns.

To evaluate the main findings' robustness regarding geographic aggregation, the first sensitivity analysis exploits variation across sub-national units. Cooperation patterns and conflict pressure are integrated at the country-by-hexagon level. Localised cooperation measures are constructed using primary actors' locations (if they are active in their home country) and the level of precision this location has been recorded with. Events recorded on the national level are "inherited" by all hexagons in a country; those recorded on the state or city level are only linked to the respective hexagon. To account for a limited daily variation of specific event types, the data is transformed into a weekly panel on the hexagon-by-country level.

By design, there will be a high degree of spatial correlation in the geographically disaggregated CP measure and some in the disaggregated cooperation probabilities. To this end, the baseline model is re-estimated implementing spatial heteroskedasticity and autocorrelation consistent (SHAC) standard errors (Conley, 1999; Hsiang et al., 2011). Correlation patterns across space and time are modelled based on two distance cut-offs (250 and 500 km) and two period cut-offs (zero and four weeks).

Robust associations emerge for conflict pressure and cooperation attention on the sub-national level as well (Appendix A, Tables A.3 and A.4). In contrast to the results of the geographically aggregated main analysis, the baseline model (applying heteroscedasticity robust standard errors) posits a significant association also for cooperation substitution. Applying spatial and

autocorrelation consistent standard errors, in turn, suggests that CP responsiveness is estimated less precisely on the sub-national level. Substantially increased standard errors no longer point to a significant association between CP and cooperation substitution. However, this implies that the essential findings on the sub-national level support those retrieved for the aggregate level.

5.2. Prior interest and inertia in the public discourse

Public discourse, and thus recorded support levels of refugees, may follow media trends. Once a certain topic is "trending", and it garnered increasing interest, more and more individuals or news outlets may talk about it. Such a process may continue for a while and potentially lead to a de-coupling of observed attention levels and the level of conflict pressure. As the event study revealed, a steady decline of attention probabilities set in after week four which suggests a notable degree of inertia in the public discourse.

To investigate how prior interest in Ukraine may shape third countries' responsiveness to conflict in Ukraine, this sensitivity analysis accounts for the attention that has been dedicated to any topics related to Ukraine in the past. More specifically, it accounts for short and long-term interest in Ukraine: The former is captured as the percentage of GDELT events with a Ukrainian secondary actor on the previous day (or the average over the previous seven days), i.e. the attention in other European countries that is dedicated to Ukrainian topics; long-term interest is incorporated via a measure of baseline interest in Ukrainian topics. This baseline interest is captured by the monthly attention dedicated to Ukrainian topics eight years before, i.e. around the time Russia annexed Crimea. Eventually, we can investigate how cooperation patterns towards refugees across Europe change in response to conflict pressure in 2022, controlling for baseline interest in Ukrainian affairs in somewhat similar circumstances when foreign forces occupied Ukrainian territory in 2014.[18]

Table 3
Cooperation attention directed at refugees and prior interest in Ukraine.

	ACLED				GDELT			
	Incidents		Fatalities		Coercion		Mil. Force	
CP_{t-1}	0.0166***	0.0152***	0.0247***	0.0232***	0.0408***	0.0386***	0.0307***	0.0290***
	(0.0031)	(0.0031)	(0.0031)	(0.0031)	(0.0038)	(0.0038)	(0.0029)	(0.0030)
Prior interest	0.0158***	0.0385***	0.0146***	0.0358***	0.0135***	0.0332***	0.0147***	0.0355***
	(0.0032)	(0.0051)	(0.0032)	(0.0050)	(0.0032)	(0.0050)	(0.0032)	(0.0050)
Base interest	0.0498***	0.0445***	0.0459***	0.0412***	0.0401***	0.0361***	0.0449***	0.0405***
	(0.0081)	(0.0082)	(0.0081)	(0.0081)	(0.0081)	(0.0081)	(0.0081)	(0.0081)
CP reference	0.0175***		0.0270***		0.0452***		0.0336***	
Prior interest (days)	1	7	1	7	1	7	1	7
N	12,319	12,184	12,319	12,184	12,319	12,184	12,319	12,184

*** p<0.01, ** p<0.05, * p<0.1

Note: All estimations contain country and day FE, as well as the full set of control variables. Conflict pressure measures are country-specific hexagon averages, based on a decay parameter $\delta = 1$, and lagged by one day. CP reference estimates correspond to the respective estimates from regressions without prior interest controls.

Accounting for prior interest reveals a distinct pattern: Attention dedicated to refugees is significantly elevated when attention to Ukrainian topics in the media was increased during the previous day or week (Table 3). The responsiveness to conflict pressure, however, emerges once more and is barely diminished. As in the main specifications, conflict pressure is mostly unrelated to the probability that European actors substituted cooperative for confrontational behaviour in their interactions with refugees (Appendix A, Table A.5). Beyond that, and irrespective of the definition of conflict pressure, a country's baseline interest in Ukrainian topics is a highly significant predictor of both cooperation attention and substitution in 2022. If attention dedicated to Ukraine in 2014 was one percentage point higher, we can expect that attention directed towards refugees is elevated by 0.04 to 0.05 pp in 2022, and refugees are about 0.7 pp more likely to experience cooperation.

The potential impact of inertia in the public discourse is modelled by integrating the short-term history of cooperation patterns: Baseline CP models are re-estimated integrating lagged cooperation measures. A first specification solely accounts for the first lag of the dependent variable; the second one assumes a seven-day inertia and thus employs the first seven lags of the dependent variable.[19] Models of cooperation attention with inertia in the public discourse produce somewhat diminished CP estimates (Appendix A, Tables A.6 and A.7). This effect "squeeze" increases when more lags of the dependent variable are included. Yet the retrieved CP estimates remain highly significant across specifications, except the one building on ACLED incidents and accounting for 7-day inertia over the 12-month horizon. Cooperation inertia itself also features prominently, especially, in the very short run: Today's cooperation attention can be expected to be 0.25 to 0.3 percentage points higher if yesterday's attention probability was elevated by one percentage point. For cooperation substitution, this inertia effect amounts to around 0.1 percentage points.

[18] This is operationalised by January 2022 "inheriting" the baseline interest from January 2014, February 2022 inherits from February 2014, and so forth.

[19] Such dynamic panel model estimations could suffer from a correlation between lagged support probabilities and unobserved country-level effects. The resulting Nickel bias (Nickell, 1981) is a serious threat in panels with few observations over time (small T) and calls for the application of dynamic panel models, e.g. with internal instruments. The analysis at hand, however, builds on a daily panel including between 168 and 418 daily observations and thus cannot be considered to be small T.

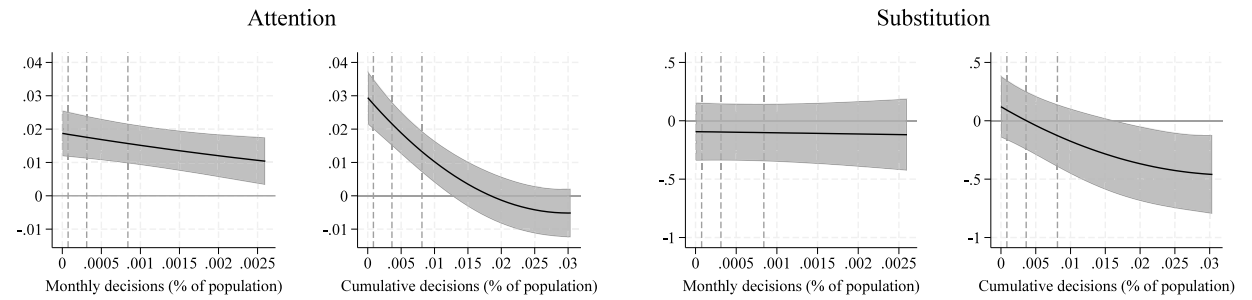

Fig. 6. Conflict pressure conditional on temporary protection decisions.
Note: Average marginal CP effects are reported for the 5th to 95th percentile of the respective temporary protection measure. All results are derived from specifications with a full set of control variables, as well as country and day-fixed effects. Sample sizes amount to 11,982. Vertical lines indicate the 25th, the 50th, and the 75th percentile. 95% confidence intervals are displayed.

5.3. Conditionality of conflict pressure: Do capacity constraints matter?

During the initial four months, when the war in Ukraine could still be considered a novelty, a strong significant association emerged between cooperation attention (or group-specific cooperation substitution) and conflict pressure. This period coincides with a swelling number of Ukrainians leaving their country. Eventually, this raises the question of whether previous results are evidence of a genuine conflict pressure effect, i.e. societies reacting to anticipated consequences of a conflict, or whether responsiveness estimates are affected by hosting capacity constraints. Such differentiation can help us to understand whether cooperation declines quasi-naturally over time, due to shrinking conflict pressure responsiveness, or in response to exhausted support capacity.

The influence of capacity constraints is investigated in two settings: One accounts for refugees crossing the Ukrainian border during the early phase of the conflict, a phenomenon that was salient in the public discourse. The other focuses on Ukrainians formally seeking protection in various European countries; their actual numbers were unknown to the public at the time and only available to national administrations with some delay.

Numbers of daily crossings at Ukrainian borders (UNHCR, 2022b) are only available up to the end of the third post-conflict month. Using this data enables a sensitivity analysis that approximates country-specific exposure to refugee flows at the Ukrainian border when the provision of support was arguably most urgent.[20] Compared to the 4-month horizon, the somewhat reduced horizon generates highly comparable findings (Appendix A, Table A.8). Accounting for the interacted first lag of refugee exposure produces a significant and even somewhat larger CP estimate. Modelling potential refugee flow exposure as the lagged first difference, which reflects a changing urgency to provide humanitarian support, reproduces the results from the baseline estimation.

To investigate the sensitivity of CP estimates concerning Ukrainians seeking protection over the 12-month horizon, we can use monthly data on decisions to grant Ukrainians protection under the European Union's Temporary Protection Directive (Eurostat, 2023). This data is used to construct two monthly measures on the host country level: new decisions and the cumulative number of decisions, both as a percentage of the population. By augmenting baseline estimations with a complete set of interactions of conflict pressure, the first monthly lag of a respective temporary protection measure, and its square it becomes possible to differentiate between countries that took in relatively few and those that hosted large numbers of Ukrainians.[21]

In the case of cooperation attention, there is no evidence suggesting that CP estimates are conditional on the numbers of newly processed Ukrainian protection seekers (Fig. 6). Over time, as the number of Ukrainians seeking protection accumulates, things change: In the presence of relatively large cohorts, notably beyond the 75th percentile, previously significant positive CP estimates turn insignificant. The more salient the group of Ukrainian refugees becomes, the less sensitive host societies react to increasing conflict pressure. Instead of focusing on the abstract implications of escalating conflict, these countries are occupied by the immediate challenges, such as supporting hosted refugees. Such a muted responsiveness to conflict pressure can also be observed for substitution probabilities, which suggest the relevance of (perceived) capacity constraints.[22] In the presence of large populations of Ukrainian refugees, significant negative responsiveness to conflict pressure emerges, i.e. cooperative behaviour directed at refugees becomes less likely. If host countries are already heavily involved in providing support, the anticipation of further conflict-related displacement waves seems to trigger what is known from the literature as compassion fade.

[20] To evaluate Ukrainian border crossings' influence on CP estimates, they are included in the baseline model as an interaction with the distance between host country capitals and Kyiv.

[21] The square term models a diminishing impact of refugee numbers. The inclusion of the monthly lag of the protection measure mitigates the issue of potential reverse causality where more cooperative interaction patterns with refugees in the first weeks of a month could increase the number of Ukrainians seeking protection later on.

[22] The relevance of capacity constraints is also established in heterogeneity analysis accounting for protection-seekers from any country of origin (Appendix C).

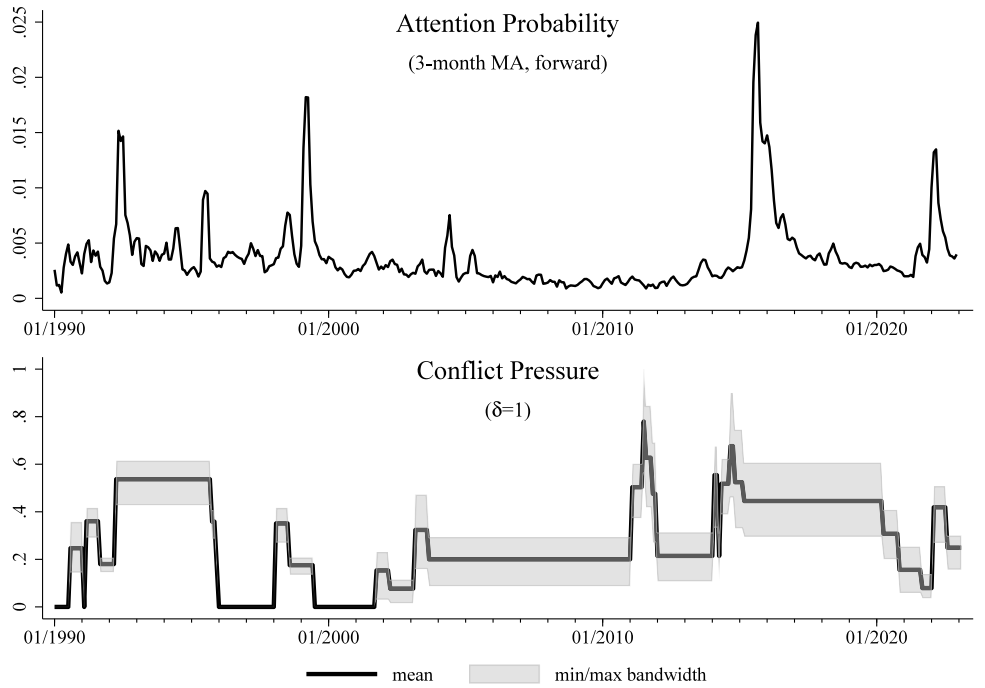

Fig. 7. Average monthly cooperation attention and conflict pressure across Europe (1990–2023).
Note: The corresponding results for the Substitution Probability and a decay parameter $\delta = 0.1$ (quicker decay) can be found in Appendix A, Figure A.9.

6. Discussion: A broader perspective on conflicts and support

6.1. Probing external validity: Is this conflict different?

Being the first conflict on European soil since World War II where a major military power initiated large-scale hostilities, the war in Ukraine has been perceived as a major paradigm shift. This could imply that the observed conflict-related responses by stakeholders across Europe may deviate substantially from typical behaviours.

To establish the findings' broader applicability, the subsequent analysis evaluates how similar the documented responses are compared to other conflicts that occurred since the fall of the Iron Curtain. Using a less detailed version of the GDELT database, monthly cooperation attention and substitution patterns related to interactions with refugees are derived for European countries from January 1990 to February 2023. Measures of indirect conflict exposure account for major international military conflicts in and around Europe.[23] Conflict pressure is derived on a country-by-month level, using the sum of the distance-weighted binary indicators representing whether a relevant conflict was ongoing in a month or not.[24]

Across the full horizon, four major spikes in cooperation attention can be observed (Fig. 7): Two are related to the outbreak of war in Bosnia–Herzegovina and Ukraine; the others occur with approximately one year delay after wars in Kosovo and Libya started. Similar to the observation made for Ukraine in 2022, attention levels decay within a few months for the three earlier conflict events. Cooperation substitution trended upward since 1990, i.e. refugee groups became more likely to experience cooperative interactions (Appendix A, Figure A.9). Two noteworthy upward deviations can be observed during the wars in Kosovo and Ukraine.

The long-run analysis, integrating conflicts between 1990 to 2023, reveals a high degree of similarity to the main analysis. The CP estimate in the case of cooperation attention in the unrestricted sample amounts to 0.013 (Appendix A, Table A.9), which is virtually indistinguishable from the main analysis using a comparable static CP concept for the Ukraine war. Restricting the sample to European countries which did not experience military conflict on their soil, i.e. excluding Croatia, Bosnia–Herzegovina, Kosovo and Serbia, produces similar estimates. Restricting the sample to observations before the year the Ukraine war broke out generates slightly reduced CP estimates. As in the Ukraine-centred main analysis, there is no significant association between CP using a linear distance decay ($\delta = 1$) and cooperation substitution. Modelling a more quickly decaying conflict exposure ($\delta = 0.1$)

[23] The former include the Yugoslav Wars in the 1990s, the Crimea annexation in 2014, and the Ukraine war starting in 2022. Major military conflicts around Europe are the conflicts in Iraq (1990–1991, 2003–2011), Afghanistan (2001–2021), Syria (2011–2020), Libya (2011, 2014–2020), and Yemen (2014-present). This list only comprises conflicts not lasting for the whole observation period.

[24] It is also re-scaled to fall within the interval between zero and one. The distance weight builds on the inverse distance from a respective European capital to the capital of a country in conflict, and a distance decay parameter ($\delta \in 0.1, 1$).

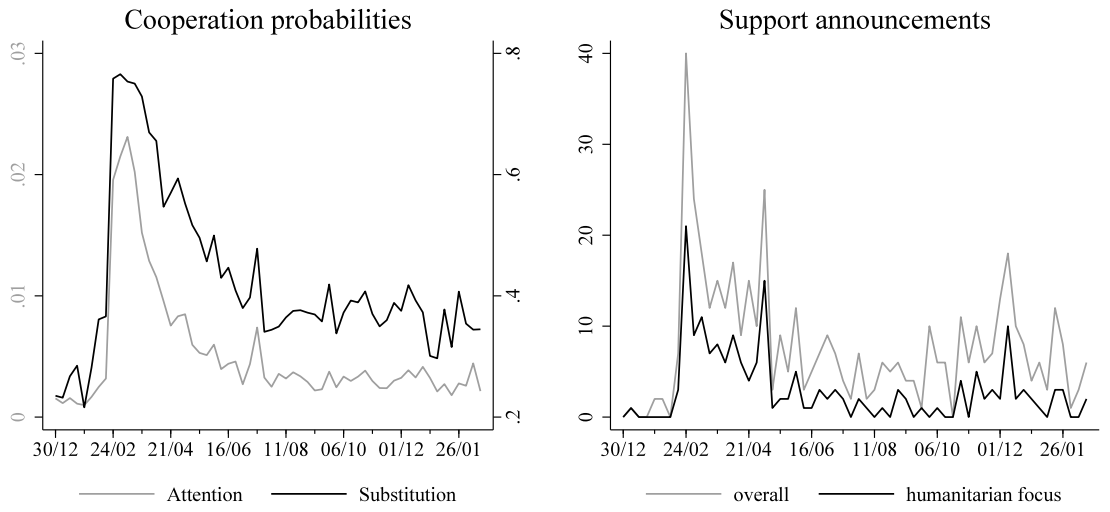

Fig. 8. Real support versus cooperation probabilities reflected in the public discourse.
Note: Verbal and material cooperation probabilities are weekly averages across European countries. Support announcements are weekly sums across all national or international European actors.

produces significant positive responsiveness estimates between 0.49 and 0.70, which are not too dissimilar to those derived in the sensitivity analyses.

Taking the long-run perspective thus suggests that European responses addressing refugees during the Ukraine conflict are not fundamentally different from those observed during other major military or violent civil conflicts in the last three decades. Attention tends to be redirected towards refugees when conflicts escalate, yet cooperation substitution only increases if conflict pressure rises due to escalating conflicts in the relative vicinity. The Ukraine conflict may have marked a turning point in terms of international relations or security, societies' responsiveness to conflict escalation, however, follows established patterns.

6.2. The congruence of real-world support and media records

As shown before, there is a distinct interrelation between indirect conflict exposure and the probability that cooperative interactions with refugee groups emerge. These interactions are based on concrete events documented in the global media sphere, yet it remains unclear if instances of planned or agreed cooperation translated into real-world support. And while GDELT-based cooperation probabilities shed light on (potential) cooperation patterns across many societal actors and interaction forms, it is impossible to verify to what extent the documented cooperative interactions benefited displaced individuals.

To establish how well media records capture real-world support, media-based cooperation probabilities are contrasted with documented support activities of major national and international European actors which are obtained from the "Ukraine Support Tracker" (Trebesch et al., 2023). Whilst the overall number of these larger-scale national or international support activities is too small to allow detailed quantitative analyses, it is easier to assess their actual implementation and subject them to more scrutiny.

The Ukraine Support Tracker identifies three major support categories: military, financial, and humanitarian assistance. Announcements for military support (45%) and humanitarian assistance (42%) were the dominant support forms. The monetary value of the offered humanitarian assistance varied between 19,000 and 1bn Euros. With the average (median) assistance package being worth about 3.98 (4.0) million Euros, the provided humanitarian support can be considered substantial.

The pattern of weekly support announcements for all European actors follows the one documented for GDELT-based cooperation probabilities.[25] After a spike in support announcements directly after the outbreak of the war, the number of weekly announcements declined over the next four months (Fig. 8). Moreover, significant correlation coefficients above 0.75 demonstrate that weekly humanitarian support announcements and cooperation probabilities are highly correlated (Appendix A, Table A.10). This descriptive analysis reveals that real-world humanitarian assistance flows are closely aligned with cooperation patterns between national stakeholders and refugee groups as represented in the media sphere. An important implication of this finding is that GDELT-based analyses can allow more timely and detailed investigations of real-world cooperation patterns in response to major developments, such as intensifying conflict.

[25] It is also in line with the public's preferences: Two months into the conflict, 95% of the European public approves of humanitarian support (European Commission, 2020). Support levels for military or financial support were 71% and 84%, respectively.

7. Conclusions

Attention is a scarce resource — even when it comes to addressing the repercussions of an international war that created mass displacement. After only four weeks, major societal stakeholders in third-party countries start refocusing their attention and reallocating their previously elevated support towards other recipients. In case of an ongoing conflict, where displacement continues and the integration of millions of individuals seeking protection can be considered an international challenge, this may have far-reaching ramifications.

At the same time, variations in conflict intensity or conflict proximity can affect the public's attention. This has been established by introducing the concept of conflict pressure, which quantifies the potential spill-over effects of a dynamic conflict to neighbouring and more distant countries. The higher this conflict pressure, the more attention is shifted towards groups of displaced individuals. This effect prevails for up to four months and is particularly strong in the case of conflict pressure associated with conflict events that are salient in contemporary public discourse. Despite notable attention shifts, there is little evidence that societies substitute cooperative for confrontational behaviour when interacting with refugees.

Yet this aggregate perspective hides considerable heterogeneity across societal groups, especially when it comes to offering material cooperation, such as providing aid. Government actors exhibit the strongest responsiveness to increasing conflict pressure. Their cooperation attention and substitution increase most among all major stakeholder groups. Surprisingly, actors from the business world or multinational corporations compete with governments, not just by shifting attention towards refugees, but rather by engaging more frequently in material cooperation: If conflict pressure rises by one standard deviation, they are 0.9 percentage points more likely to provide aid when interacting with refugees. In relative terms, refugees thus become almost 50% more likely to receive substantial support from economic actors.

Synthesising the findings of this research, we can conclude that the typically observed decline in support of displaced individuals is not just the consequence of an inevitably fading interest in a topic. Any escalation of the underlying conflict can rekindle host societies' interest in refugees, irrespective of whether new displacement occurs or not. Yet whilst many societal stakeholders seem sympathetic and willing to dedicate their attention, only government actors or those from the economy seem to increase their support propensities in response to an escalating crisis for a longer while. The anticipation of continuing displacement in the presence of actual or perceived capacity constraints, however, may spur compassion fade and diminish support activities.

Building on the granularity of the proposed conflict pressure concept, a further extension could examine how actors in smaller administrative units or major cities in potential destination countries adjust their support levels. This would, in principle, enable more nuanced analyses of responses from major societal stakeholders. Due to the near-real-time availability of recorded interactions in the public discourse, timely insights could directly feed into the decision-making processes of actors involved in aid provision in a respective locality. Ultimately, this may contribute to a more efficient use of scarce resources, such as volunteers' time or aid budgets.

Declaration of generative AI in scientific writing

No AI tools were used by the author to generate results or producing text.

CRediT authorship contribution statement

Reinhard A. Weisser: Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Project administration, Resources, Validation, Visualization, Writing – original draft, Writing – review & editing.

Declaration of competing interest

The author declares that there is no funding to be declared and there is no conflict of interest.

Online Appendix

Supplementary material related to this article can be found online at https://doi.org/10.1016/j.inteco.2024.100555.

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