# External threats and group identity - The effect of Russia's invasion in Ukraine on European Union identity

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#### Abstract

Can external threats strengthen group identities? A growing economics literature emphasizes the importance of cultural attributes such as identity for trust and cooperation. However, where these attributes come from is not well-understood. This paper examines reactions to the Russian invasion of Ukraine in 2014, looking at European Union member states. Comparing low- versus high-threat states in a difference-indifferences design, I find a sizable and persistent positive effect on EU identity. It is associated with higher trust in EU institutions and support for common policies. Lower-level identities remain unaffected and distance to Russia and Russian minority size are driving high-threat status.

*Keywords:* External threats, identity economics, group identity, cooperation, nation-building, trust, fiscal federalism, European Union, EU identity, Russia, Ukraine, Eastern Europe

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## 1 Introduction

For most of human history people have lived in small groups of up to 150 individuals, yet the most important units of political and economic organization today are much larger. Which forces keep those units together and allow them to cooperate at a larger scale? The German sociologist Georg Simmel (2010) hypothesized in his seminal work that heterogeneous groups "will easily break apart unless a danger, shared by all, forces them together". The more heterogeneous a political unit is with regard to history, language or ethnicity, the more relevant a joint group identity is for economic and political cooperation (see Akerlof and Kranton, 2000, for the importance of identity for economics). In particular states that were formed on a voluntary basis seem to require a "fear of an external threat to hold them together" (Montesquieu, 1777). Historical examples of this mechanism include the Swiss cantons against the Habsburg empire, the Dutch provinces against Spain, the American colonies against England, or the European Union against the Soviet threat (Vaubel, 1994).

One major aim of this study, compared to the existing literature, is to disentangle the effect of a threat from the effect of conflict (Bauer, Blattman, Chytilová, Henrich, Miguel, and Mitts, 2016), serving in the military (Jha and Wilkinson, 2012), or occupation and destruction (Dell and Querubin, 2017). Behavioral economists and psychologists find that threats can contribute to a stronger common group identity (e.g. Giles and Evans, 1985; Tajfel, Turner, Austin, and Worchel, 1979), but for reasons of practicality experimental evidence largely focuses on social or status threats. Focusing on the relationship between the Cold War threat and presidential support as well as bipartisan consensus in the US, there is some correlational evidence using observational data, but it finds inconclusive results (Meernik, 1993; McCormick and Wittkopf, 1990; Wolfe, 1984).

This paper exploits the Russian invasion in Ukraine in 2014 as exogenous variation in the military threat for European Union (EU) member states. I focus on the eastern EU member states that are more comparable economically and with regard to initial identity, and share experiences with Soviet rule during the Cold War. I show that among those states, the perceived military threat was more salient for the Baltic countries Estonia and Latvia, which feature a direct land border with Russia and a significant ethnic Russian minority population (see also Laitin, 1998). This enables me to implement a difference-in-differences design, where these two treated high-threat states and the control low-threat states initially exhibit similar levels and trends in EU identity. I show that there are no problematic compositional changes, and my main specification uses a short event window to reduce the impact of other potentially biasing events.

Using large-scale individual-level survey data from Eurobarometer, I find that the in-

creased external threat by Russia caused an overall increase in European identity in EU member states. With the DiD specification, I find the effect to be statistically highly significant, persistent and large, corresponding to more than three-fourths of the cross-country differences between member states. In line with psychological theories, the stronger identity is not purely instrumental - related to higher benefits from protection - but also leads to higher trust in EU institutions. Finally, in line with the importance of identity and trust for cooperation, I find increased support for common EU policies.

I further explore heterogeneity. The identity effect is stronger for older individuals who have personal experiences with what it meant to be under Russian control during Soviet times. There is no evidence that the effect is moderated by education or by a region's export dependence from Russia. I also find no evidence in favor of an information channel respondents in high-threat states do not become objectively better informed about the EU. In support of the interpretation that I am capturing a general shift in identity and trust, I also find a positive correlation with more support for other common EU policies that would offer no obvious direct benefit as defense against the external threat.

In a series of robustness tests, I show that these results are robust to extending the sample to all EU member states, and to varying the definition of threat intensity. Specifically, I add Lithuania or Finland as high-threat states, and use a continuous measures of threat intensity based on Google trends or historical Soviet Era persecution. In line with my theoretical considerations, Russian minority members who live in high-threat states, but do not perceive Russia as a threat, consequently also exhibit no change in identity. Finally, I address potential issues regarding the computation of standard errors in a setting with few clusters.

The first contribution of this paper is to the emerging economics literature identifying causal sources of changes in identity using observational data. Depetris-Chauvin, Durante, and Campante (2020) show how shared experiences can foster a common national identity and reduce the risk of internal conflict, focusing on the effect of sport events. Fouka (2020) shows how repressive policies against an immigrant group in a foreign country can strengthen the identity of that group. Dehdari and Gehring (2021) document that repressive nation-building policies can contribute to the development of a stronger regional identity, and that this correlates with preferences against common central decision-making. This paper, to the best of my knowledge, is the first to propose a suitable quasi-experimental design based on a natural experiment that allows disentangling the effect of an external threat from conflict or repression.

I also contribute to a more general and growing economics literature emphasizing the importance of culture (e.g Bazzi, Fiszbein, and Gebresilasse, 2020; Desmet and Wacziarg, 2018; Grosfeld, Rodnyansky, and Zhuravskaya, 2013; Giuliano and Nunn, 2016; Lowes, Nunn,

Robinson, and Weigel, 2017), and an experimental literature highlighting the role of group identities for decision-making (see review in Kranton, 2016). Among others, a common identity decreases destructive behavior, increases trust and contributions to public goods (Chowdhury, Jeon, and Ramalingam, 2016; Charness, Cobo-Reyes, and Jiménez, 2014). An important insight from the experimental literature is that group identity measured directly through questionnaires matches revealed preferences in experiments well (Attanasi, Hopfensitz, Lorini, and Moisan, 2016). My results emphasize the external validity and relevance of the experimental studies linking identity to trust and cooperation within groups. While identities are often based on deep-rooted historical factors, my study is evidence that real-world external shocks have the potential to affect identity and related policy preferences.

The third contribution is to the growing literature on state capacity and nation-building (e.g., Bazzi, Gaduh, Rothenberg, and Wong, 2019; Cantoni, Chen, Yang, Yuchtman, and Zhang, 2017; Cantoni and Yuchtman, 2013; Laitin, 2007), nationalism (Alesina, Reich, and Riboni, 2017; DellaVigna, Enikolopov, Mironova, Petrova, and Zhuravskaya, 2014), and its consequences (Ananyev and Poyker, 2019). I also relate to important contributions in political science (e.g., Anderson, 2006; Cederman, 2001; Weber, 1979) and in economic history. We can think of the external threat as reactivating historical memories of Soviet rule. Fouka and Voth (2016) and Ochsner and Roesel (2017) show how, conditional on sub-national variation in historical exposure, current events influence purchases and voting behavior. Korovkin and Makarin (2019) show that within Ukraine itself, the Russian aggression had a negative effect on trade with Russia even in regions not directly affected by combat. This paper uses the similar historical exposure of Eastern EU member states to establish valid treatment and control groups, and exploits differences in current threat intensity to show an effect on identity, trust, and political cooperation.

Finally, I contribute to the public and political economics literature about fiscal federalism and the size-of-nations (Alesina and Spolaore, 1997; Desmet, Le Breton, Ortuño-Ortín, and Weber, 2011; Dreher, Gehring, Kotsogiannis, and Marchesi, 2017; Gehring and Schneider, 2020, 2018). For a long time, economists assumed preferences about the vertical allocation of power in multi-level governance systems as fixed or at least pre-determined. Understanding how identity affects preferences is a crucial aspect to decide about optimal institutional design and policy choices. In the European Union specifically, questions about further integration are at the core of the political and academic debate (Dolls, Fuest, Heinemann, and Peichl, 2016). Heterogeneous preferences (Alesina and Wacziarg, 1999) and a weak common EU identity (Ciaglia, Fuest, and Heinemann, 2020) are reasons why some functions that are normally centralized remain the responsibility of lower-level units.<sup>1</sup> This study documents how exogenous external events that foster the feeling of belonging to a joint group can lead to a meaningfully stronger identity, and increase support for common centralized policies in federal systems.

# 2 Threats, identity and cooperation

From an economics point of view, group identities can be seen as a technology to overcome collective-action problems in settings with heterogeneous group members, asymmetric information, and commitment problems. Similar to culture, identity is based on deep-rooted aspects like ethnicity, language or common history. A crucial difference was highlighted by Amartya Sen (2007), but is not yet fully acknowledged in economics. Identity is highly adaptive to the context, including adaption caused by different types of external shocks. The psychologists Turner, Oakes, Haslam, and McGarty (1994, p.458) explain that context-dependence "is not a sign that the true identity of the person is being distorted by external circumstances." To the contrary, identity needs to be adaptive to be "accurate and useful.

Evolutionary psychology explains why. The optimal size of groups needed for finding and sharing food or providing a social safety net is "different from that required for optimal mutual defense" (Brewer, 2000, p.122). Military threats can be regarded as conflicts that have not materialized yet, but will do so with a certain probability. A sudden increase in this probability requires more mutual defense at the larger group level. One perspective is that this is achieved purely through a rational optimization calculus, where people support more cooperation as the value of defense increases. A channel could be that they gather more information about other group members, which could increase in-group trust and cooperation.

The mechanism that I highlight is that threats can directly strengthen group identity, which in turn fosters trust and cooperation. When "computing" their identity in the face of an external threat, individuals can be thought of as putting more weight on attributes they share with other group members compared to those that differ (Dehdari and Gehring, 2021). This allows identity to be adaptive even though it is fundamentally based on slowly-moving deep-rooted attributes. Psychologists and biologists think of this as a mostly sub-conscious, psychological reaction, reflecting "automatic processes" and "a largely automatic attempt to restore a subjective sense of control" (Fritsche, Jonas, and Kessler, 2011, p.101-102).

Experiments suggests that threats can turn individuals "into vigorous protagonists of what their in-group stands for" (Stollberg, Fritsche, and Jonas, 2017, p.390), and increase "the

<sup>&</sup>lt;sup>1</sup> There is a large and important literature in political science studying EU support (e.g., Hobolt and de Vries, 2016; Schneider, 2020) and support for common policies specifically (Hooghe and Marks, 2004).

collective response of in-group trust" (Fritsche, Moya, Bukowski, Jugert, de Lemus, Decker, Valor-Segura, and Navarro-Carrillo, 2017, p.125). Trust allows large groups to cooperate better, in particular in times of crisis, by establishing a norm of diffuse reciprocity where people act in the interest of the group beyond cases where reciprocity can be enforced directly. This mechanism is even evident at a biological level. De Dreu, Greer, Handgraaf, Shalvi, Van Kleef, Baas, Ten Velden, Van Dijk, and Feith (2010) show that higher levels of the neuropeptide oxytocin – associated with closer identification with a group – promote ingroup trust and cooperation. When the group is perceived to be threatened, people might be more likely to do what is good for the group (Weisel and Zultan, 2016), even when that means personal sacrifice.

We can consider an external military threat as common to all members of a larger political unit if it relates to tensions between that unit and an external power, and if an attack would endanger the territorial integrity of the unit. Conditional on the level of common identity, an attack on one state can be considered an attack on the union of states – and thus potentially strengthen that common identity, trust and cooperation. Still, differences in the intensity of the threat exist - which I will exploit for identification - depending on the salience of the threat or the likelihood of being directly attacked. For instance, the Japanese attack on Pearl Harbor was perceived as a threat to the US, but fears of an attack were probably more salient for the geographically closer US West Coast states.

### **3** Background: Russia, EU, and the Ukraine crisis

The Ukraine crisis allows exploiting the differential effect of a credibly exogenous, unexpected shock with a suitable treatment and control group. Most eastern EU member states experienced the behavior of the Soviet army (see Ochsner, 2017) and Soviet rule as part of the Warsaw Pact or the Soviet Union until their dissolution in 1991 (see timeline in Figure 1a and Figure 1b). After a little more than a decade of independent states in Eastern Europe (Figure A.2b), the eastern expansion of the EU dramatically increased when ten states became EU members in 2004 (Figure A.2c), and two more in 2007. Afterwards, Ukraine, Belarus, and Moldova remained the last independent states in between the EU and Russia (Figure 1c).

This expansion into its former sphere of influence was seen increasingly critically by Russia. Despite explicit Russian warning not to tie closer links with Ukraine, the EU started negotiations about an Association Agreement in 2012.<sup>2</sup> On February 18, 2014, the pro-

 $<sup>^2</sup>$  See https://www.theguardian.com/world/2013/sep/22/ukraine-european-union-trade-russia, last accessed 07/23/2020.

European Maidan revolution succeeded and the pro–Russian Ukrainian president fled the country. Two days later, Russia started invading Crimea, culminating in the formal annexation on March 18th. This was a huge shock. Russia has an experienced and large army that did intervene before in case of secessionist regions (Chechnya), and also externally when Russian minorities were claimed to be in danger (Georgia), but Crimea constitutes the first forceful annexation since WW2 in Europe. Few experts had warned of a Russian reaction, but the overwhelming majority thought "Russia Will Not Intervene in Ukraine" (Time magazine), explained "Why Russia Won't Interfere" (NYT) and "Why Russia Won't Invade Ukraine" (Foreign Affairs).<sup>3</sup> As The Economist describes, that is why Crimea caused eastern EU member states to suddenly update their priors and perceive the threat posed by Russian as much more serious.<sup>4</sup>

Psychological theory suggests that this external threat could strengthen EU identity by increasing the weights its citizens assign to attributes that all group members have in common. In psychology terms, citizens in other EU states "will be recategorized as 'us' in contrast to 'them'" (Turner et al., 1994, p.456). The external threat "should reduce perceptions of intergroup dissimilarities" (Vezzali, Cadamuro, Versari, Giovannini, and Trifiletti, 2015, p. 521) and increase the alignment with overarching entities (Gaetner, 2012), fostering the will-ingness to cooperate. As an illustration of this mechanism, an eastern EU head-of-state calls upon European Union citizens after Crimea to recognize that "only together, looking for what unites us rather than divides, can we maintain peace in our continent" (Jakniunaite, 2016, p. 13).

Citizens in the EU are members of multiple groups – regions, member states, the European Union – so, which group identity do we expect to be strengthened by the threat? Social psychology allows some predictions, summarized in Figure B.1. The Group-Based Control Theory hypothesizes that when personal control is endangered by a threat, individuals will identify more with groups that they perceive as valuable to restore their sense of control (Correll and Park, 2005). The Comparative Fit Criterion in self-categorization theory highlights the salience of a group in comparison with the out-group that poses the threat. Relative Accessibility Theory emphasizes whether a group is associated with values that are endangered by the threat. Based all on those criteria, it seems plausible that EU instead of national or lower-level identity is strengthened. Descriptive evidence in Figure A.3a shows that in Eastern Europe the EU is often associated with values that based on past experience would be threatened by a Russian occupation – peace, individual freedom, democracy, and

<sup>&</sup>lt;sup>3</sup> See , and , last accessed 08/03/2020.

<sup>&</sup>lt;sup>4</sup> See https://www.economist.com/briefing/2014/03/06/sixes-and-sevens, last accessed 07/23/2020.





Notes: First three figures are author's own depictions. Source of Figure 1d and Figure 1e is Eurobarometer; Figure 1d is based on data from Estonia, Latvia, Lithuania, Bulgaria, Czechia, Hungary, Poland, Romania and Slovakia in pre-treatment period. Figure 1e is based on all EU28 countries. The latter two graphs also display 95% confidence intervals around the sample means. Section 4.1 provides details.

Undoubtedly, NATO is also extremely important as an alliance offering protection for eastern EU states against Russia. This is not a problem for identifying the effect of an external threat on EU identity. To plausibly induce an increase in EU identity, it is sufficient that being an EU member is perceived as reducing the threat to some degree. Figure 1d shows that more than 70% of individuals agree that the EU offers protection for its citizens and helps to tackle global threats. The editors of the Journal of Baltic Security highlight that there are "two major security providers: the EU and the NATO" (Maskaliunaite and Roden-Bow, 2016, p. 4). Being an EU member can increase small member states' bargaining power in NATO and the likelihood that the mutual defense clause would be fulfilled in case of an actual attack. The EU complements NATO's military capabilities with its diplomatic competences and the ability to impose economic sanctions. In that regard, the EU actually reacted jointly to Crimea by imposing severe sanctions against Russia - despite being economically costly for some states (see Table A.9).<sup>5</sup>

# 4 Data and identification

#### 4.1 Identity measurement

I measure European Union identity using direct questions from Eurobarometer. Their regular surveys are conducted twice a year – in May and November – in all member states, and comprise a representative sample (about 1000 face-to-face interviews) for each state. Some questions are asked every time, others only once a year. Measuring group identity through direct questions explains behavior in coordination games well (Attanasi et al., 2016). Outside the lab, prior research shows that stated identity measured with such questions is associated with revealed identity measures like voting behavior (Dehdari and Gehring, 2021) and internal conflict (Depetris-Chauvin et al., 2020).

My main measure *EU identity* asks how attached the respondent feels to the EU on a 4-point Likert-scale, the most common survey measure of identity. Most authors interpret this attachment question as measuring "belonging" Pollini (2005); Yuval-Davis (2006), or just regard it as a synonym of collective identity Croucher (2004); Weedon (2004); Weeks (1990) (Buonfino & Thomson, 2007). The attachment question is also asked separately about lower-level identities, which I use to explore a potential effect on those levels.

Even though this question is so widely used and validated, relying on a single item to measure a potentially complex construct as identity could pose a problem. Hence, I use

<sup>&</sup>lt;sup>5</sup> Accordingly, in the Baltic states in particular agreement to the question whether the EU offers "adequate protection of external borders" increased by nearly 20% between 2016 and 2018.

Sense of EU citizenship and European versus national identity as additional measures. Sense of EU citizenship as a question highlights the political dimension of the EU as well as the notion of belonging to a larger joint European demos. The last question should capture the emotional component of identity well. However, it suggests implicitly to respondents that there necessarily is a conflict or substitution between national and EU identity. While prior research suggests that a stronger EU identity does not have to come at the cost of a weaker national identity (Gehring, 2020), it is interesting to see whether, when pushed to do so, we see some substitution away from national to EU identification.

The social-psychological theories propose that the effect on identity is at least partly an unconscious reaction associated with an increase in in-group trust. If the stated identity would solely be the result of a rational expectation, we would not expect to see higher ingroup trust. Higher trust is then thought of as one channel leading to a higher willingness to cooperate. I use questions about trust in EU institutions, and political support for common EU policies. Support questions cover a common defense policy, but also a common foreign policy and EU enlargement. As a kind of placebo test, I investigate answers to purely economic questions that should not be affected differentially by the Russian threat. Table A.1 - A.3 provide all details on the questions and Table A.4 shows descriptive statistics.

As a first step to evaluate my hypothesis, I consider the pure time-series correlation before and after the invasion of Crimea. Figure 1e shows the average value of my main measure, *EU identity*, during the entire pre- compared to post-treatment period for the EU as a whole. We can see that, indeed, there is a clear positive correlation: identification with the EU is on average considerably higher after the Crimea incident that increased the salience of the external threat posed by Russia.

#### 4.2 Identification: differences in threat intensity

The unexpected Russian invasion offers exogenous variation over time, but overlapping events could bias such a simple pre-/post comparison. To be able to implement a difference-in-differences (DiD) approach and estimate a causal effect, I exploit additional cross-sectional variation using differences in the perceived intensity of the threat posed by Russia.

In that regard I have to make three choices. First, which states to include in my main sample. Second, which states to categorize as high and which as low-threat. Third, whether and how to restrict the event window. I will validate all these choices and run robustness tests to examine the sensitivity of my results towards each of them.

Regarding the first point, I restrict my main sample of treated and control states to nine eastern EU member states that were former Soviet Union or Warsaw pact members. I exclude Slovenia and Croatia, which were part of Yugoslavia during the Cold War. For robustness tests, I include all EU states in an extended sample. The criteria are:

- Comparable levels of initial EU identity. Most Western states became EU members much earlier, which plausibly leads to initial level differences. ? highlight that DiD results are more robust when initial levels are similar.
- Comparable exposure to other shocks. Eastern states are more similar economically and politically. In robustness tests, I also control for macro-level shocks, but their importance is much lower within a more homogeneous sample.
- Comparable expected reaction to threat. History influences how people react to current shocks (Ochsner and Roesel, 2017). Citizens in states that were part of the Soviet Union or Warsaw Pact share a more comparable understanding of the Russian threat.

Second, I use two criteria to differentiate between the intensity of the threat in different states. In Figure 2b I define Estonia and Latvia as the "treated" high-threat states in darker blue and seven other eastern states - the low-threat states in light blue - form the control group. My two objective arguments for this distinction are the following. First, the two high-threat states have a direct land-border with mainland Russia (Figure 2c), which clearly increases the perceived risk of an invasion. Second, they feature by far the largest ethnic Russians minority groups (Figure 2c), which played an important role in justifying the Russian invasions in Ukraine and the one in Georgia. I exclude ethnic Russians themselves from my sample

The most difficult decision is whether to assign the third Baltic country, Lithuania, as high- or low-threat. My decision to assign it as low-threat is, first, based on the importance of the actual land border for military strategic considerations. Experts speculating about a Russian attack highlight that "a large-scale short-notice Russian invasion could reach the capitals [of Estonia and Latvia] within a few days" (Larrabee, Pezard, Radin, Chandler, Crane, and Szayna, 2017, p.8). A "greater difficulty" is assigned for reaching Lithuania's capital. Most importantly, the size of the Lithuanian Russian minority, 4.8%, is magnitudes smaller (Figure 2c). I further validate this choice in section 4.3.

Third, the DiD design implicitly also assumes common shocks: that other events overlapping with but unrelated to the Russian invasion in Ukraine did not decisively affect identity differently in low- versus high-threat states. The most obvious potentially biasing event is the refugee crisis starting in fall 2015, which led to tensions between EU institutions and some eastern states like Hungary and Poland. As both are in the low-threat group, including this time period could bias my estimates upwards. To minimize these risks, I choose an event window for my main specification that begins in 2012 - when the main outcome variable becomes available in Eurobarometer - and ends in summer 2015. I then consider longer event windows to examine persistence.



Figure 2: Differential effects of the increased Russian threat on EU identity

**Notes**: Figure 2a reports a time-line for our analysis. Figure 2b provides a graphical representation of our treatment and control groups. Minority shares in Figure 2c identified based on language. Figure 2d shows a simple average difference in our main variable of analysis; figures shows 95% confidence intervals of averages.

### 4.3 Validating differences in threat intensity

To validate my choice of high-threat states, I turn to media- and online-based proxies for changes in the salience of the threat. Regarding media, I use data on news agencies and newspaper articles from the database Factiva. As a first check, I examine changes in the number of articles that mention a version of "Russia" together with a word signaling a threat. I can implement this article-level analysis for five Eastern states that have an Englishlanguage news agency. The results in Figure 3a show a common pre-trend among all five states, followed by strong increase after Crimea. This increase is by far the highest for Estonia and Latvia, followed by Lithuania, then Bulgaria and Poland.

As a second check, I examine in further detail whether Estonia and Latvia, in line with my arguments, really perceive the threat more strongly than Lithuania. To do this, I examine articles in the Baltic Times, an English-language newspaper covering all three Baltic states. I first download the full text of all articles mentioning "Russia\*", "Ukraine" or "Crimea", which I then process using the Python NLP package Spacy. In a next step, I select the specific sentences containing one of the three states AND Russia AND a word signaling fear from the *NRC Emoticon Intensity Lexicon*. The results further support that the increase in the threat is clearly stronger in Estonia and Latvia than in Lithuania. Qualitatively, note that several of the selected sentences specifically refer to the large Russian minorities in the two high-threat states as a risk-factor (examples provided in Figure C.2)

Finally, to illustrate the perceived severity of the shock by the broader population in all nine states, I use Google Trends to examine changes related to five *Google Topics* that are likely to capture searches associated with the Russian threat. Figure C.3 shows a large spike upwards after the Crimea invasion. Figure 3d shows that this increase is much larger in the two high-treat states, and that the change in Lithuania being again closer to the next highest low-threat state than to Estonia. Hence, all measures support the plausibility of assigning high-threat status to Estonia and Latvia. Nonetheless, any such binary distinction remains to some degree arbitrary, which is why I will test for robustness of my results using plausible other specifications.

#### 4.4 Identification and pre-trends

To estimate a causal effect, we need to assume that without the Russian invasion in Crimea EU identity would have developed the same way in low- and high-threat states. Using the two pre-treatment observations for EU identity, Figure 2d illustrates that prior to 2014 trends in EU identity were indistinguishable.<sup>6</sup> Moreover, the initial levels are also similar, making the DiD assumptions more plausible, as we do not need to further assume that the factors causing level differences are uncorrelated with future trends (see ?).

Finally, changes in the composition of the population in high- versus low-threat states could affect the estimate. Table A.5 shows the balancedness in levels and trends over the event period. There are no significant trend differences for all except one aspect, which turns out to be negligible. To account for compositional changes, all specifications control

 $<sup>^{6}</sup>$  Figure 5 also shows no systematic pre-trends for the two other identity measures.



Figure 3: Differences in perceived intensity of Russian threat

Notes: Measures in Figure 3a and Figure 3b are normalized to period t-1. Figure 3a displays the number of English language articles by national sources concerning Russia threat, between  $19^{th}$  February 2013 and  $20^{th}$  February 2015. We used the following search command in the database Factiva: "Russi\* and (threat or risk or danger or aggression or annex\* or invasion) and *country/nationality* not Gazprom" (*nation/nationality* according to state). This includes the Latvian News Agency (Latvia), Baltic Daily (Estonia), Lithuanian News Agency (Lithuania), Polish News Bulletin (Poland) and the Bulgarian News Agency (Bulgaria). Figure 3b, is based on full-text articles from The Baltic Times, between  $19^{th}$  February 2013 and  $20^{th}$  February 2015. We used the following search commands in *Factiva*: "Russi\* or Ukrain\* or Crime\*". Then, I conduct use NLP to select sentences including: a) *state/nationality* per each state, b) the words *Russia/Russian* and c) words capturing fear; sets are mutually exclusive. We used the *NRC Emoticon Intensity Lexicon* dictionary as list of fear related words; we included only words with a score  $\geq 0.5$ . Figure 3c and Figure 3d are based on Google Trends averaged across five Google topics: "Russian Armed Forces", "Russia", "Vladimir Putin", "Ukraine", and "Crimea." Note that these topics are assembled by Google and capture all searches thematically related to a topic in any language, and allow me to distinguish searches by member state.

for pre-determined individual-level socio-demographic factors like age or gender.

Looking at the raw data, Figure 2d shows that EU identity indeed increased more strongly in the high-threat states after the Crimea shock. I analyze this difference-indifferences systematically using the following regression

(1) 
$$y_{i,s,t} = \beta_0 + \beta_1 High\text{-threat}_s \times D_t^{2014} + X'_{s,t}\theta + \delta_s + \lambda_t + \epsilon_{i,s,t}$$

where  $y_{i,s,t}$  is the outcome for individual *i* in state *s* in year *t*, i.e. the response to a particular survey question. To ease interpretation, all outcomes  $y_{i,t}$  are standardized.  $X_{i,t}$  is a set of individual characteristics including gender, age, education level, and labor market status. State  $(\delta_s)$  and year  $(\lambda_t)$  fixed effects capture state- and year-specific factors, including the main terms forming the interaction. Standard errors  $\epsilon_{i,s,t}$  are clustered at the region level.

 $High-threat_s$  is a dummy variable equaling 1 for Estonia and Latvia.  $D_t^{2014}$  equals 0 before and 1 after Crimea. Their interaction  $\beta_1$  is my main variable of interest, capturing the treatment effect.

### 5 Main Results

#### 5.1 Results for EU identity

Table 1 shows the main results for my preferred measured *EU identity*. Column 1 begins by quantifying the simple pre-/post-difference, column 2 introduces a simple DiD specification, column 3 then adds member state and time FE, and column 4 adds (potentially endogenous) member-state-level macro control variables.

All columns yield comparable point estimates. The pre/post comparison within the high-threat states in column 1 shows a very similar increase in EU identity of 18.5%. My preferred specification in column 3 yields a coefficient of 0.167, about 17% of a standard deviation. This effect is not just statistically highly significant with a p-value of less than than 0.01, it is also meaningfully large. It corresponds, for instance, to more than  $\frac{3}{4}$ s of the pre-treatment identity differences between member states within the EU (see Table D.1).

	(1)	(2)	(3)	(4)
	EU identity	EU identity	EU identity	EU identity
	Coef./SE/p-value	Coef./SE/p-value	Coef./SE/p-value	Coef./SE/p-value
High-threat $\times$		0.172	0.167	0.214
Post-treatment		(0.051)	(0.046)	(0.062)
		[0.001]	[0.001]	[0.001]
Post-treatment	0.185	0.018		
	(0.038)	(0.030)		
	[0.001]	[0.562]		
Member state FE	yes	no	yes	yes
Time FE	no	no	yes	yes
Member state characteristics	no	no	no	yes
Adj. R-Squared	0.07	0.04	0.07	0.07
Ν	4695	24884	24884	24884

 Table 1: Full DiD results: EU identity (2012-2014 event window)

**Notes:** Regressions coefficients with standard errors in parentheses and p-values in square brackets (clustered at the regional level). All outcomes are standardized. Column 1 shows the pure time-variation, columns 2-4 the DiD coefficients (High-threat dummy is not displayed in column 2). *EU identity* is standardized with mean 0 and variance 1. All regressions control for individual characteristics including gender, age, education level, labor market status, urban versus rural areas, marital status, and presence of children. Member state characteristics include GDP per capita growth, inflation rate, youth unemployment rate, and a dummy for legislative elections held.

Column 4 indicates that adding macro-level controls would, if anything, strengthen this result. Figure 4, panel A, shows that using the two other identity measures yields remarkably similar estimates in size and significance. This supports that the main results are not driven by selecting a particular question or question type, and that they capture a real change in identity. To understand this effect in more detail, Figure D.5, compares the distribution of pre- and post-treatment answers, indicates that the increase in identity is driven by a shift of respondents towards expressing a stronger identity across the whole distribution. Using *European versus national identity*, Figure D.6 suggests some substitution between national and EU identity, but mostly a reduction in those solely identifying as national and a strong increase in those identifying as both national and European.

#### 5.2 Mechanisms and consequences

Figure 4, panel B to D, provide results that help to understand the mechanisms behind the increase in identity, potential confounders, and the link to willingness to cooperate. Panel B, *Psychological attitudes* shows that the stronger EU identity indeed coincides with an increase in trust in the EU in general, but also in joint EU institutions like the parliament and the Commission. Generally people also feel more positive about their state's future in the EU.

This highlights two aspects. First, that the increase in stated identity is not solely driven



Figure 4: Main results, mechanisms, consequences, alternative measures and levels

**Notes:** Figure displays DiD coefficients measuring the impact of the increased Russian threat, and corresponding 90 and 95% confidence intervals (95 in lighter gray). All outcomes are standardized. The regressions included the following control variables: gender, age, education level, labor market status, type of area of living (urban versus rural), marital status, household composition, time fixed effects, and member state fixed effects. Standard errors are clustered at the regional level. The number of the pre-treatment measurements is between two and five, the number of post-treatment observations between one and three, depending on the availability of variables. The number of observations for EU identity is 24,885, for the other outcomes it ranges from 25,569 to 68,408. Table E.2 shows detailed results.

by instrumental motivations. This could not explain the clear increase in trust. Rather, these psychological changes highlight the automatic or subconscious effect of the threat highlighted by social psychologists. Second, it is in line with the hypothesis that one evolutionary purpose of a stronger group identity under threat is a strengthening of in-group trust, which should increase the willingness to cooperate at the larger group level.

Panel C, Economic perceptions, capture whether other changes that affect low- and high-

threat states differently might drive the result, focusing on major areas like growth, inflation, doing business and unemployment. The results are all insignificant, with different signs and point estimates close to zero.

Finally, the *Political support* results in panel D show clear and significant increases in support for three common EU policies that were covered pre- and post-treatment in Eurobarometer. There is higher support for a common defense policy, quite directly related to the group jointly offering protection against the external threat. However, the stronger identity and higher trust also seem to foster support more generally: for a common foreign policy, as well as for the enlargement policies of the EU.<sup>7</sup>

#### 5.3 Identity at lower levels

Panel E shows the results for identities at lower levels within the EU's federal architecture. The theories from social psychology predicted that as a reaction to the threat identification with the level that was perceived as most helpful against the threat, and most salient in the media, would increase most. In fact, there is no effect at all for national (member state) identity, as well as for regional identity. This is in line with qualitative evidence describing the post-Crimea public discourse in high-threat states with an "emphasis on a "we" which did not mean only "we Estonians" or "we Latvians", but a broader community: either "we Europeans" or "we Westerners" (Jakniunaite, 2016, p.13-14). To the best of my knowledge, this is novel evidence showing the real world relevance of those theoretical considerations.

#### 5.4 Persistence and longer pre-trends

Russia's actions in Ukraine might have permanently altered the probabilities assigned to a conflict with Russia. Alternatively, it is possible that when the events become less salient, the perceived threat and identity decrease again. Figure 5 shows a specification with leads and lags for all three main identity measures. It expands the event window to the earliest possible date for each measure, up until 2018. A first insight is that there are no systematic pre-trends for any measure. This is particularly interesting and reassuring for *Sense of EU citizenship*, where I can expand the pre-treatment window to begin already in 2010.

<sup>&</sup>lt;sup>7</sup> There is no way to precisely disentangle the relative contribution of the identity-¿trust-¿cooperation mechanism from a purely instrumental motivation to cooperate more. There is also no way to "proove" which of the three constructs identity-trust-cooperation changes first. However, there is a strong prior about the mechanism in this order based on biology and experimental evidence. My aim is to show real-world evidence that is in line with this theoretical prior.



Figure 5: Persistence with leads and lags: main identity measures

Notes: Figure 5a displays coefficients and 95% confidence intervals from regressions of *EU identity* on leads and lags (wave 1 in each year) of the interaction of time dummy variable and *High-threat* using the main specification from Figure 4. Year 2013 (wave 1) is taken as reference period; standard errors are clustered at the regional level. We use same controls employed in the main specification of our analysis. We also added a set of macro controls: GDP growth index, inflation, youth unemployment and a variable indicating whether legislative election have been held. Figure 5b and Figure 5c displays the same for sense of EU citizenship and European versus National identity, respectively. Data are available from 2012 to 2018 for EU identity and EU versus National identity, and from 2010 to 2018 for sense of EU citizenship.

The figures show that the effect is quite stable effect and does not simply disappear after the first post-treatment year. As expected given the potential influence of other events over a longer event window, the estimates become slightly less precise over time, but remain positive and mostly statistically significant. Given that the conflict in Ukraine was still going on in 2018, it is not possible to determine whether this persistent effect is due to the threat remaining high, or signs of a possibly permanent shift in identity. It seems plausible that parts of it would remain permanent even when the immediate threat would disappear as long as memories of it persist.

### 6 Heterogeneous effects

#### 6.1 Differences in threat intensity within Baltic states

The main distinction between high- and low-threat states was based on distance to Russia and the share of ethnic Russians. This argument was supported by qualitative evidence and the media and online search results, and we can further verify its plausibility by using sub-national variation between regions within the Baltic states. To do that, I compute the distance to the Russian mainland border and the share of Russians at the regional level for the three Baltic states that have a relevant Russian minority. Figures 6a and 6b visualize the units in this analysis, and show the relative proximity and the share of the Russian minority by region. I then estimate

(2) 
$$EUidentity_{i,r,t} = \beta_0 + \beta_1 D_t^{2014} + \beta_2 Intens_r + \beta_3 D_t^{2014} \times Intens_{r,t} + X'_{i,t}\theta + \delta_j + \epsilon_{i,r,t}$$

where  $EUidentity_{i,t}$  is the outcome for individual *i* in region *r* in year *t*, i.e. their response to the survey question on EU identity.  $D_t^{2014}$  equals 0 prior to the treatment, and 1 afterwards, and  $Intensity_r$  captures the share or distance at the regional level.  $\beta_3$  capture the interaction between both: differences in the effect of the threat conditional on  $Intensity_r$ . State ( $\delta_c$ ) fixed effects capture state-specific factors.<sup>8</sup>

Figures 6c and 6d plot the marginal effects of the increased Russian threat conditional on the distance and the share:  $\frac{\partial EU Identity}{\partial D^{2014}} = \beta_1 + \beta_3 Intensity$ . I find that, in line with the assumption about the salience of the threat, the effect is larger the shorter the distance to Russia and the higher the share of ethnic Russians. Table E.1 provides the full regression results, showing that the interaction effect is also statistically significant.

<sup>&</sup>lt;sup>8</sup> Table E.1 shows that the results are robust to using region fixed effects instead.



Figure 6: Heterogeneous effects - Russian minority share and distance to Russian border

**Notes:** Figure 6a and Figure 6b visualize regional differences in threat intensity within the Baltic EU member states. Figure 6c and Figure 6d display the marginal effects of a binary post-treatment measured at selected levels of threat-intensity. The dependent variable, *EU identity*, is standardized. The 95%-confidence intervals are based on robust standard errors, clustered at the region level. We use same controls employed in the main specification of our analysis. The underlying bar charts in gray are histograms of the two intensity indicators across regions. Full results in Table E.1.

### 6.2 Age, (Soviet) education, and historical Soviet exposure

This section examines heterogeneous effects based on individual-level or area-specific differences. First, I divide the respondents in three age groups. The idea is that older people had a larger exposure to Russia in the past. The first age group constitutes of people below the age of 40, plausibly without many active memories of the Soviet Union or Warsaw pact. The second age group is 40-64, the third group everyone above that age range.

The regressions suggest that indeed own experiences with Russia in the past strengthen the reaction to the Crimea shock. Compared to the reference category of younger people, both older age cohorts exhibit a significantly stronger positive effect. I find the largest effect for the oldest cohort. This is in line with other studies showing that exposure to certain shocks earlier in life can affect the reaction to current shocks that trigger these memories.

Second, I investigate what extent the effect differs depending on the type of education individuals received. The three groups are those with only primary, with secondary or with tertiary education. I find no relevant differences regarding the educational background, with small and clearly insignificant estimates.

Third, I investigate whether having received education during the Soviet Union moderates the reaction to the threat. To do that, I code for each individual which share of the education that they received was plausibly conducted during Soviet times. Initially, it seems that there is support for that hypothesis based on a positive interaction. However, when including both the age cohort indicators together with the share of education measure, the effect disappears while that of the age cohorts remains robust. Of course, this is not a definitive causal distinction on which of the two matter, but suggest that personal experience more generally seems decisive rather than indoctrination during school.

Fourth, I further examine whether economic dependence on Russia as a more rational explanation moderates the effect. Reasons could be that people in those regions have more positive experiences or associations with Russia. Moreover, if the identity response would be a rational decision one might expect that it would be weaker in regions that would be hurt economically from a conflict with Russia. To do that, I compute at the sub-national level what share of exports goes to non-EU countries. There are no sub-national data on specific exports to Russia, but the country-level data show that 28-38% of those has Russia as their destination. Overall, I find no evidence that economic considerations moderate the effect, further indicating that the identity effect is better considered as an unconscious, psychological response than a rational choice.

	(1)	(2)	(3)	(4)	(5)
	Attach EU				
	Coef./SE/p-value	Coef./SE/p-value	Coef./SE/p-value	Coef./SE/p-value	Coef./SE/p-value
Post-treatment	0.067	0.142	0.014	0.046	-0.059
	(0.037)	(0.189)	(0.045)	(0.053)	(0.337)
	[0.101]	[0.470]	[0.765]	[0.407]	[0.865]
Post-treatment	0.127			0.094	
$\times$ Age 40-64	(0.076)			(0.152)	
	[0.123]			[0.549]	
Post-treatment	0.367			0.334	
$\times$ Age 65-100	(0.106)			(0.157)	
-	[0.006]			[0.059]	
Post-treatment		0.066			
$\times$ Secondary		(0.166)			
education		[0.701]			
Post-treatment		0.044			
$\times$ Tertiary		(0.173)			
education		[0.803]			
Post-treatment		L J	0.002	0.001	
$\times$ Share			(0.001)	(0.002)	
education under Soviet Union			[0.027]	[0.786]	
Post-treatment			L J		-0.017
$\times$ Export to					(0.015)
non-EU					[0.262]
Member state FE	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes	Yes
Adj. R-Squared	0.08	0.07	0.07	0.08	0.07
N	4695	4695	4695	4695	4695

Table 2: Heterogeneous effects: estimate effect across age, (Soviet) education and export dependence

**Notes:** Regressions' coefficients with standard errors in parentheses and p-values in square brackets (clustered at the regional level). All models include data only on Estonia and Latvia; outcome is standardized accordingly. Column 1 shows interactions with age groups: group 15-39 is the reference, groups 40-64 and 65-100 are displayed. Column 2 shows interactions with level of education: reference level corresponds to primary education or no education pursued at all, secondary and tertiary school attendance coefficients are shown. Column 3 shows the interaction with the share of education years attained in Soviet Union. Column 4 shows a combination of interactions effects from models in column 1 and 3. Column 5 displays results of interaction with extra-EU export index controlling for export to intra-EU states. We consider five main sectors: agriculture, fishery and forestry (NACE:A) industry (NACE:B-E), construction (NACE:F), trade, transport, accommodation and food service activities (NACE:G-J), financial sector (NACE:K) and real estate (NACE:L). Table E.3 in the appendix, displays the same models showing also the coefficients of main effects.

# 7 Robustness

### 7.1 Alternative samples and definitions of threat intensity

As a first robustness test, I investigate the sensitivity of my results with regard to the selection of the treated group of high-threat states and to the composition of the sample. I modify my main specification along two lines. First, I try adding Lithuania with its small but non-negligible Russian minority and Finland with its land border with mainland Russia as high-threat states. Second, I extend the main sample of Eastern European member states to a sample including all EU members (EU28).

Figure 7 shows coefficient plots for all three EU identity measures. The results in panel A to panel E show that the results are robust to all these modifications. In panel F, I replaced the binary distinction in high-and low-threat states altogether by using the continuous measure of treatment intensity from Google Trends instead. Although the size of the coefficients is no longer comparable in the setup, all three are positive and the ones for *EU identity* and *Sense of EU citizenship* clearly statistically significant.

Finally, as an alternative, pre-determined measure of threat-intensity, I use the Life in Transition survey (LITS) to compute to what extent people themselves or their extended family directly experience persecution while their state was directly or indirectly controlled by the Soviet Union. I then aggregate the responses at the member state-level. The idea is that respondents in states that experienced more persecution also perceive the threat as more intense, providing a continuous treatment-intensity measure. The results in panel G show that this works well, with positive and significant coefficients for all three identity measures.

### 7.2 (Non-)Effect on Russian minority in Latvia and Estonia

For Latvia and Estonia the survey data allow distinguishing majority and Russian minority respondents. Theoretically, one should expect those minority members to react differently if ethnic Russians do not perceive Russia as a threat. Responses from a the Latvian Political Survey in December 2014 suggest this is not the case. Minority members regard Ukraine or Western actors as responsible for what happened in Crimea, not Russia's attempt to expand their power. And while most majority Latvians perceive Russia as a threat, more than 90% of ethnic Russians do not share that feeling. I run the same regression as in subsection 6.1, only now using the sample of minority respondents.



Figure 7: Alternative definitions of treatment and sample composition

#### Coefficient

**Notes:** DiD coefficients measuring the impact of increased Russian threat on three identity measures considering different samples and treatment definitions. Displaying 90% and 95% confidence intervals (95 in lighter gray), based on standard errors clustered at the regional level. All outcomes are standardized according to the sample used in each model. Control variables: gender, age, education level, labor market status, type of area of living (urban versus rural), marital status, household composition, time fixed effects, and member state fixed effects. "Main sample" includes Estonia, Latvia, Lithuania, Bulgaria, Czechia, Hungary, Poland, Romania and Slovakia, EU28 includes all states.Panel F and G use a continuous measure of threat intensity at the member state level.

Figure 8 shows two main results. First, in line with the absence of a perceived threat for ethnic Russians, there is no significant change in EU identity for that minority group. This is reassuring, further confirming that it is the change in threat and not something peculiar about Latvia and Estonia that is driving the main effect. Second, there are no significant differences conditional on the share of ethnic Russians in a particular region. Note that there is also no change in national or regional identity for Russian minority members, similar to what I find for majority members.



Figure 8: Effects for Russian minority members - conditional on minority share

**Notes:** The figure displays marginal effects of a binary post-treatment measured only among Russian speakers in Estonia and Latvia at different levels of Russian minorities regional share. The underlying bar charts in gray are histograms of regional Russian minorities share. Outcome is standardized and the 95%-confidence intervals are based on robust standard errors. We use same controls employed in the main specification of our analysis. Figure 8a shows marginal effects on EU identity, Figure 8b shows marginal effects on sense of regional identity and Figure 8c shows the interaction with measure of national identity. Bar charts behind the figures show the distribution of Russian minority concentration at the regional level relative to which marginal effects are computed. Figure 8d shows distribution of Russian minorities in Estonia and Latvia.

#### 7.3 Information vs. trust

As outlined before, the change in identity, trust and willingness to cooperate could be explained in a more rational way or based on a psychological more unconscious response. It is a key limitation of this study that I will not be able to state with certainty to what extent either mechanism contributes to the effect.

One way how a purely rational, self-interested cognitive response could also trigger higher trust in the EU would be based on information acquisition. We know from prior research, for instance regarding financial market participants, that more information reduces uncertainty and could be related to higher trust (see e.g. Fuchs and Gehring, 2017). It is possible that as a reaction to the Russian threat, citizens acquire more information about the EU - and those in high-threat states would become relatively better informed about positive aspects of the EU.

I explore this information hypothesis in Table 3, using further questions from Eurobarometer surveys. I begin by examining whether people actually acquired more factual information about the EU. The results indicate that they objectively neither learn more about the EU Commission or Parliament, nor acquire greater general knowledge about the EU based on quiz-like questions Eurobarometer asks. However, when asked about their subjective understanding of how the EU works, there is a significant (small) positive effect. Both results are in line with a more psychological explanation, suggesting that higher identity and trust could contribute to a feeling of being informed well to allow more cooperation, even without actual (at least measurable) improvements.

	(1)	(2)	(3)	(4)
	Knowledge about the	Knowledge about the	General knowledge about	Self-assessed understanding
	EU Commission	EU Parliament	EU (3 items questionnaire)	about the EU
	Coef./SE/p-value	Coef./SE/p-value	Coef./SE/p-value	Coef./SE/p-value
High-threat $\times$	0.044	0.046	-0.020	0.058
Post-treatment	(0.032)	(0.039)	(0.040)	(0.033)
	[0.185]	[0.240]	[0.613]	[0.087]
Member state FE	yes	yes	yes	yes
Time FE	yes	yes	yes	yes
Adj. R-Squared	0.06	0.03	0.09	0.10
Ν	67533	67931	68405	65256

Table 3: Higher understanding and knowledge of EU in high-threat countries

**Notes:** Regressions coefficients with standard errors in parentheses and p-values in square brackets (clustered at the regional level). All outcomes are standardized. We implement the model corresponding to our main specification but using as dependent variable measures of pure knowledge/information about the EU. Column 1 shows results for responses to the question "Have you heard of the European Parliament" Column 2 shows results for responses to the question "Have you heard of the European Commission". Column 3 shows uses the share of correct answer given by respondents to three quiz-like questions asked about the EU: No. of member states, election to EU Parliament, and whether Switzerland is part of the EU.

### 7.4 Additional Policies

Although sample size and frequency with which questions were asked are more limited, there are further questions about support for EU policies. I can use those in my main DiD regression specification, comparing pre- and post-Crimea outcomes in high- and low-threat states. Specifically, I find that support for Eurobonds (the issuance of common EU debt), common banking supervision and a common migration policies all increase significantly, while a common financial regulation is positive but insignificance. This is an important additional result, as it underlines that the increase in willingness to cooperate along with a stronger identity and higher trust are not confined to areas where high-threat states have a clear self-interest to cooperate for safety reasons.





**Notes:** Figure displays the DiD coefficient measuring the impact of the increased Russian threat, and corresponding 90 and 95% confidence intervals (95 in lighter gray). All outcomes are standardized. The regressions included time fixed effects, and member state fixed effects. They use observations between November 2013 and November 2014. The number of observations for support for Common migration policy is 16021. For the other policy support measures, it is between 19,500 and 23,000. The questions about a common EU migration policy change slightly over time.

#### 7.5 Other robustness

Figure 10 shows that the main effect on EU identity is robust to variations in the DiD specification. Among others, it is robust to adding country-year level control variables in four different dimensions – capturing potential changes that differ between treatment and control states and overlap with the treatment. Interacting the individual controls with the year fixed effects to account for time-varying effects conditional on treatment status is also unproblematic.

I can also use emigrants from the high-threat states Estonia and Latvia living abroad in low-threat states as an alternative counterfactual. This approach has the advantage that those emigrants share the same initial background and culture, theoretically only differing in being more or less exposed to the threat due to their current location. Figure D.3 indeed shows a larger identity increase for those actually living in high-threat states. Using that in a regression in Table D.2 supports my prior findings with a positive coefficient of similar size, but due to the low number of such emigrants, the estimates are very noisy.



Figure 10: Event window (2012-2018) and robustness tests

**Notes:** We use the main specification from Figure 4; we also added a set of macro controls: GDP growth index, inflation, youth unemployment and a variable indicating whether legislative election have been held. Year 2013 (wave 2) is taken as reference period; standard errors are clustered at the regional level. Table E.6 column 3 provides regressions results for the event window (2012-2018). RI refers to randomization inference, implemented using the Stata package *ritest* (Hess, 2019). The "R=" refers to the level at which the treatment was randomized). Full regression results in Appendix E.

Moreover, returning to the main specification, I estimate standard errors in different ways. Clustering at the state level works, but the number of cluster is small. Wild cluster bootstrap approaches severely under-reject when the number of treated clusters is smaller than five, but randomization inference seems to be a feasible alternative (Conley and Taber, 2011; MacKinnon and Webb, 2016). I use three versions, randomizing at the state, at the region, and at the individual level. The results are robust to all those alternatives. Finally,

the main result holds with the extended event window. Further tests in Table D.4 show that the results are also not driven by specific states in the control group, leaving out one state at a time. Column 4 of Table E.6 illustrates that Eurozone membership is not biasing the results. Appendix F assesses potential confounding events.

### 8 Conclusion

This paper contributes to the emerging economic literature on the origins of group identities, as well as to the existing broader social science literature. Adding to the scarce evidence from observational data to assess changes in identity (Depetris-Chauvin et al., 2020; Dehdari and Gehring, 2021; Fouka, 2020), the results foster our understanding of how important events are able to influence identity and associated preferences in the real world. The results also provide an empirical validation of the importance of the threat-mechanism, which was emphasized theoretically and tested experimentally in social psychology and behavioral economics. They show that not only social threats, but also real military threats – hard to emulate in an experiment – have a sizable and consistent effect using a large sample. The estimations use a simple, but transparent and effective identification strategy, exploiting differences in threat perception and the timing of the Eurobarometer surveys.

The first main result is that the external military threat posed by Russia causes a significant increase in common European Union identity. This is, to the best of my knowledge, the first causal non-experimental evidence that allows disentangling the effect of an external threat from other events like war, serving in the military, or occupation. The effect is also of a meaningful size. To put it into perspective, the increase accounts for more than three-fourths of the standard deviation between EU member states in the cross-section. The effect seems to persist and remain rather stable over time when expanding the event window.

The second main result is that a stronger common group identity goes along with more trust in common institutions and higher support for common policies at a central level. The fact that trust in common institutions also increases significantly signals that the increase in identity also reflects a psychological change, in line with proposed mechanisms by psychologists. This is a crucial insight for understanding nation-building and the stability of nations (Alesina and Spolaore, 1997; Desmet et al., 2011; Fearon and Laitin, 2003), as well as the allocation of power in federal systems (Dreher et al., 2017; Rodden, 2004). It also matters more broadly for understanding the role of group identity for cooperation within groups (Alesina and La Ferrara, 2005; Ferrara, 2003), support for common institutions (Alesina and Giuliano, 2015) and redistribution.

With regards to the EU specifically, the results suggest that the existence of an out-group

that threatens in-group members can have a unifying effect. It must be noted, however, that this is an effect on the willingness-to-cooperate. Whether it fosters real cooperation will depend on the costs of cooperation and the ability of political institutions to achieve feasible compromises. It seems possible that outside threats in other areas, like Brexit or trade conflicts, might also contribute to a higher common identity and more political cooperation.

### Bibliography

- Akerlof, G. A. and R. E. Kranton (2000). Economics and identity. The Quarterly Journal of Economics 115(3), 715–753.
- Alesina, A. and P. Giuliano (2015). Culture and institutions. Journal of Economic Literature 53, 898–944.
- Alesina, A. and E. La Ferrara (2005). Ethnic diversity and economic performance. *Journal* of *Economic Literature* 43, 762–800.
- Alesina, A., B. Reich, and A. Riboni (2017). Nation-building, nationalism and wars. NBER Working Paper w18839.
- Alesina, A. and E. Spolaore (1997). On the number and size of nations. *The Quarterly Journal of Economics* 112(4), 1027–1056.
- Alesina, A. and R. Wacziarg (1999). Is Europe going too far? In Carnegie-Rochester Conference Series on Public Policy, Volume 51, pp. 1–42. Elsevier.
- Ananyev, M. and M. Poyker (2019). State capacity and demand for identity: Evidence from political instability in Mali. Institute for New Economic Thinking Working Paper Series No. 97.
- Anderson, B. (2006). Imagined Communities: Reflections on the Origin and Spread of Nationalism. Verso books.
- Attanasi, G., A. Hopfensitz, E. Lorini, and F. Moisan (2016). Social connectedness improves coordination on individually costly, efficient outcomes. *European Economic Review 90*, 86 – 106.
- Bauer, M., C. Blattman, J. Chytilová, J. Henrich, E. Miguel, and T. Mitts (2016). Can war foster cooperation? *Journal of Economic Perspectives* 30(3), 249–74.
- Bazzi, S., M. Fiszbein, and M. Gebresilasse (2020). Frontier culture: The roots and persistence of "rugged individualism" in the United States. *Econometrica (forthcoming)*.
- Bazzi, S., A. Gaduh, A. D. Rothenberg, and M. Wong (2019). Unity in diversity? How intergroup contact can foster nation building. *American Economic Review* 109(11), 3978–4025.
- Brewer, M. (2000). Social Identity Processes: Trends in Theory and Research, Chapter 8: Superordinate Goals Verus Superordinate Identity as Bases of Intergroup Cooperation, pp. 118–131. Sage.
- Brinegar, A. P. and S. K. Jolly (2005). Location, location, location: National contextual factors and public support for European integration. *European Union Politics* 6(2), 155–180.
- Cantoni, D., Y. Chen, D. Y. Yang, N. Yuchtman, and Y. J. Zhang (2017). Curriculum and ideology. *Journal of Political Economy* 125(2), 338–392.
- Cantoni, D. and N. Yuchtman (2013). The political economy of educational content and development: Lessons from history. *Journal of Development Economics* 104, 233 244.
- Cederman, L.-E. (2001). Constructing Europe's Identity: the External Dimension. Lynne Rienner Publishers.
- Charness, G., R. Cobo-Reyes, and N. Jiménez (2014). Identities, selection, and contributions in a public-goods game. *Games and Economic Behavior* 87, 322–338.
- Chowdhury, S. M., J. Y. Jeon, and A. Ramalingam (2016). Identity and group conflict. European Economic Review 90, 107 – 121.
- Ciaglia, S., C. Fuest, and F. Heinemann (2020). What a feeling?! How to promote European identity. *European Integration Studies* (14), 9–25.

- Conley, T. G. and C. R. Taber (2011). Inference with 'difference in differences' with a small number of policy changes. *The Review of Economics and Statistics* 93(1), 113–125.
- Correll, J. and B. Park (2005). A model of the ingroup as a social resource. *Personality and Social Psychology Review* 9(4), 341–359.
- Croucher, S. L. (2004). Globalization and Belonging. The politics of Identity in a Changing World. Boulder: Rowman & Littlefield.
- De Dreu, C. K., L. L. Greer, M. J. Handgraaf, S. Shalvi, G. A. Van Kleef, M. Baas, F. S. Ten Velden, E. Van Dijk, and S. W. Feith (2010). The neuropeptide oxytocin regulates parochial altruism in intergroup conflict among humans. *Science* 328(5984), 1408–1411.
- Dehdari, S. H. and K. Gehring (2021). The origins of common identity: Evidence from Alsace-Lorraine. *American Economic Journal: Applied Economiy forthcoming.*
- Dell, M. and P. Querubin (2017). Nation building through foreign intervention: Evidence from discontinuities in military strategies. *Quarterly Journal of Economics*, 1, 64..
- DellaVigna, S., R. Enikolopov, V. Mironova, M. Petrova, and E. Zhuravskaya (2014). Crossborder media and nationalism: Evidence from serbian radio in croatia. American Economic Journal: Applied Economics 6(3), 103–32.
- Depetris-Chauvin, E., R. Durante, and F. R. Campante (2020). Building nations through shared experiences: Evidence from African football. *American Economic Review* 110(5), 1572–1602.
- Desmet, K., M. Le Breton, I. Ortuño-Ortín, and S. Weber (2011). The stability and breakup of nations: a quantitative analysis. *Journal of Economic Growth* 16(3), 183.
- Desmet, K. and R. Wacziarg (2018). The cultural divide. NBER WP 24630.
- Dolls, M., C. Fuest, F. Heinemann, and A. Peichl (2016). Reconciling Insurance with Market Discipline: a Blueprint for a European Fiscal Union. CESifo Economic Studies 62(2), 210–231.
- Dreher, A., K. Gehring, C. Kotsogiannis, and S. Marchesi (2017). Information transmission within federal fiscal architectures: Theory and evidence. Oxford Economic Papers 70(1), 243–265.
- Fearon, J. D. and D. D. Laitin (2003). Ethnicity, insurgency, and civil war. American Political Science Review 97(1), 75–90.
- Ferrara, E. L. (2003). Kin groups and reciprocity: A model of credit transactions in Ghana. American Economic Review 93(5), 1730–1751.
- Fouka, V. (2020). Backlash: The unintended effects of language prohibition in US schools after World War I. *Review of Economic Studies* 87(1), 204–239.
- Fouka, V. and J. Voth (2016). Collective remembrance and private choice: German-Greek conflict and consumer behavior in times of crisis. *Stanford Center for International Development Working Paper No.* 587.
- Fritsche, I., E. Jonas, and T. Kessler (2011). Collective reactions to threat: Implications for intergroup conflict and for solving societal crises. Social Issues and Policy Review 5(1), 101–136.
- Fritsche, I., M. Moya, M. Bukowski, P. Jugert, S. de Lemus, O. Decker, I. Valor-Segura, and G. Navarro-Carrillo (2017). The great recession and group-based control: Converting personal helplessness into social class in-group trust and collective action. *Journal of Social Issues* 73(1).
- Fuchs, A. and K. Gehring (2017). The home bias in sovereign ratings. Journal of the European Economic Association 15(6), 1386–1423.
- Gaetner, S., D. J. (2012). Handbook of Theories of Social Psychology, Volume 2, Chapter 48:

The Common Ingroup Identity Theory. SAGE Publications.

- Gehring, K. (2020). Overcoming history through exit or integration Deep-Rooted sources of EU support and Euroscepticism. *American Political Science Review (forthcoming)*.
- Gehring, K. and S. Schneider (2020). Regional resources and democratic secessionism. *Journal of Public Economics* 181.
- Gehring, K. and S. A. Schneider (2018). Towards the greater good? EU commissioners' nationality and budget allocation in the European Union. American Economic Journal: Economic Policy 10(1), 214–39.
- Giles, M. W. and A. S. Evans (1985). External threat, perceived threat and group identity. Social Science Quarterly 66(1), 50–67.
- Giuliano, P. and N. Nunn (2016). Understanding cultural persistence and change. NBER Working Paper No. 23617.
- Grosfeld, I., A. Rodnyansky, and E. Zhuravskaya (2013). Persistent antimarket culture: a legacy of the pale of settlement after the holocaust. *American Economic Journal: Economic Policy* 5(3), 189–226.
- Hess, S. (2019). RITEST: Stata module to perform randomization inference and permutation tests. Statistical Software Components, Boston College Department of Economics.
- Hobolt, S. B. and C. E. de Vries (2016). Public support for European integration. Annual Review of Political Science 19(1), 413–432.
- Hooghe, L. and G. Marks (2004). Does identity or economic rationality drive public opinion on European integration? *PS: Political Science & Politics* 37(3), 415–420.
- Jakniunaite, D. (2016). Changes in security policy and perceptions of the baltic states 2014–2016. Journal of Baltic Security 2(2), 4–5.
- Jha, S. and S. Wilkinson (2012). Does combat experience foster organizational skill? Evidence from ethnic cleansing during the partition of South Asia. American Political Science Review 106(04), 883–907.
- Korovkin, V. and A. Makarin (2019). Conflict and inter-group trade: Evidence from the 2014 Russia-Ukraine crisis. *mimeo*.
- Kranton, R. E. (2016). Identity economics 2016: Where do social distinctions and norms come from? *American Economic Review* 106(5), 405–09.
- Laitin, D. D. (1998). Identity in Formation: The Russian-speaking Populations in the Near Abroad. Cornell University Press.
- Laitin, D. D. (2007). Nations, states, and violence. Oxford University Press.
- Larrabee, F. S., S. Pezard, A. Radin, N. Chandler, K. Crane, and T. S. Szayna (2017). Russia and the West after the Ukrainian crisis: European vulnerabilities to Russian pressures. Rand Corporation.
- Lowes, S., N. Nunn, J. A. Robinson, and J. L. Weigel (2017). The evolution of culture and institutions: Evidence from the Kuba Kingdom. *Econometrica* 85(4), 1065–1091.
- MacKinnon, J. G. and M. D. Webb (2016). Wild bootstrap inference for wildly different cluster sizes. *Journal of Applied Econometrics (published online)*.
- Maskaliunaite, A. and A. R. Roden-Bow (2016). Editor's note. *Journal of Baltic Secu*rity 2(2), 4–5.
- McCormick, J. M. and E. R. Wittkopf (1990). Bipartisanship, partisanship, and ideology in congressional-executive foreign policy relations, 1947-1988. *The Journal of Politics* 52(4), 1077–1100.

- Meernik, J. (1993). Presidential support in congress: Conflict and consensus on foreign and defense policy. *The Journal of Politics* 55(3), 569–587.
- Montesquieu, M. d. (1777). Complete Works of M. de Montesquieu. T. Evans and W. Davis.
- Ochsner, C. (2017). Dismantled once, diverged forever? A quasi-natural experiment of red army misdeeds in post-WWII Europe. *Ifo Working Paper No. 240*.
- Ochsner, C. and F. Roesel (2017). Activating history the Turkish sieges of Vienna, anti-Turkish campaigns, and the rise of right-wing populism. *CESifo Working Paper 6586*.
- Pollini, G. (2005). Elements of a theory of place attachment and socio-territorial belonging. International Review of Sociology 15(3), 497–515.
- Rodden, J. (2004). Comparative federalism and decentralization: On meaning and measurement. Comparative Politics, 481–500.
- Schneider, C. J. (2020). Public commitments as signals of responsiveness in the European Union. Journal of Politics 82(1).
- Sen, A. (2007). Identity and Violence: The Illusion of Destiny. Penguin Books India.
- Simmel, G. (2010). Conflict and the Web of Group Affiliations. Simon and Schuster.
- Stollberg, J., I. Fritsche, and E. Jonas (2017). The groupy shift: Conformity to liberal in-group norms as a group-based response to threatened personal control. *Social Cognition* 35(4), 374–394.
- Tajfel, H., J. C. Turner, W. G. Austin, and S. Worchel (1979). An integrative theory of intergroup conflict. Organizational Identity: A Reader, 56–65.
- Turner, J. C., P. J. Oakes, S. A. Haslam, and C. McGarty (1994). Self and collective: Cognition and social context. *Personality and social psychology bulletin* 20(5), 454–463.
- Vaubel, R. (1994). The political economy of centralization and the European Community. *Public Choice* 81(1-2), 151–190.
- Vezzali, L., A. Cadamuro, A. Versari, D. Giovannini, and E. Trifiletti (2015). Feeling like a group after a natural disaster: Common ingroup identity and relations with outgroup victims among majority and minority young children. *British Journal of Social Psychol*ogy 54 (3), 519–538.
- Weber, E. (1979). *Peasants into Frenchmen: Modernization of Rural France*, 1870-1914. London: Chatto and Windus.
- Weedon, C. (2004). *Identity and Culture*. Maidenhead: Open University Press.
- Weeks, J. (1990). The value of difference. in j. rutherford (ed.), identity, community, culture, difference. London: Lawrence and Wishart, 88–100.
- Weisel, O. and R. Zultan (2016). Social motives in intergroup conflict: Group identity and perceived target of threat. *European Economic Review 90*, 122–133.
- Wolfe, A. (1984). The Rise and Fall of the Soviet Threat: Domestic Sources of the Cold War Consensus. South End Press.
- Yuval-Davis, N. (2006). Belonging and the politics of belonging. International Review of Sociology 40(3), 197–214.
## Appendix A Sources and descriptive statistics

Variable	Question/Description	Categories/Scale/Formula	Source
<b>DiD</b> variables High-threat		0 = BG, CZ, HU, LT, PL, RO, SK; 1 = LV, EE	own coding
Post-treatment		0 for years 2011-2013; 1 for years 2014 and 2015	own coding
Dependent variables EU identity	"Please tell me how attached you feel to the EU"	4 = very attached; $3 =$ rather at- tached; $2 =$ not very attached; $1 =$ not attached at all	Eurobarometer 2012(May), 2013(Nov), 2014(Nov), 2015(Nov)
Sense of EU citizenship	"For each of the following state- ments, please tell me to what ex- tent it corresponds or not to your own opinion: you feel you are a citizen of the EU"	4 = yes, definitely; $3 =$ yes, to some extent; $2 =$ no, not really; 1 = no, definitely not	Eurobarometer 2012, 2013, 2014, 2015
European versus National identity	"Do you see yourself as?"	1 = "(NATIONALITY) and European" or "European and (NA- TIONALITY)" or "European only"; 0 = "(NATIONALITY) only"; standardized with mean 0 and standard deviation 1	Eurobarometer 2012(May), 2013, 2014, 2015
Trust in the EU	"For each of the following media and institutions, please tell me if you tend to trust it or tend not to trust it: the EU"	1 = tend to trust; $0 = $ tend not to trust	Eurobarometer 2011(Nov), 2012, 2013, 2014, 2015
Trust in the European Par- liament	"Please tell me if you tend to trust or tend not to trust these European institutions: the Euro- pean Parliament"	1 = tend to trust; $0 =$ tend not to trust	Eurobarometer 2011(Nov), 2012, 2013, 2014, 2015
Trust in the European Commission	"Please tell me if you tend to trust or tend not to trust these European institutions: the Euro- pean Commission"	1 = tend to trust; $0 =$ tend not to trust	Eurobarometer 2011(Nov), 2012, 2013, 2014, 2015
Country better face the fu- ture within the EU	"Please tell me to what extent you agree or disagree with each of the following statements: (OUR COUNTRY) could better face the future outside the EU"	1 = totally agree; 2 = tend to agree; 3 = tend to disagree; 4 = totally disagree;	Eurobarometer 2012(Nov), 2013, 2014, 2015
Globalisation a growth opportunity	"Please tell me to what extent you agree or disagree with each of the following statements: global- isation is an opportunity for eco- nomic growth"	4 = totally agree; $3 =$ tend to agree; $2 =$ tend to disagree; $1 =$ totally disagree;	Eurobarometer 2012, 2013, 2014, 2015
EU makes cost of living cheaper	"Please tell me to what extent you agree or disagree with each of the following statements: the EU makes the cost of living cheaper in Europe"	4 = totally agree; 3 = tend to agree; 2 = tend to disagree; 1 = totally disagree; standardized with mean 0 and standard devia- tion 1	Eurobarometer 2013, 2014, 2015(May)
EU makes doing business easier	"Please tell me to what extent you agree or disagree with each of the following statements: the EU makes doing business easier in Europe"	4 = totally agree; $3 =$ tend to agree; $2 =$ tend to disagree; $1 =$ totally disagree	Eurobarometer 2013, 2014, 2015(May)
EU means unemployment	"What does the EU mean to you personally? (multiple answers possible)"	1 = Unemployment (marked); 0 = Unemployment (not marked)	Eurobarometer 2011(Nov), 2012, 2013, 2014, 2015

Table A.1: Variables description (i.)

**Notes:** Description of variables used. For variables with more than 2 categories, the values of the categories are reversed compared to the original question categories so that higher values indicate stronger agreement. All dependent variables are standardized with mean 0 and standard deviation 1

<b>Table A.2:</b> Variables description (ii.)	)
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Variable	${f Question/Description}$	Categories/Scale/Formula	Source
<b>Dependent variables</b> Support common EU defense	"Please tell me for each state- ment, whether you are for it or against it: a common defence and security policy among EU Mem-	1 = for; $0 = $ against	Eurobarometer 2011(Nov), 2012, 2013, 2014, 2015
Support the EU common for- eign policy	ber States" "Please tell me for each state- ment, whether you are for it or against it: a common foreign pol- icy of the 28 Member States of the EU"	1 = for; $0 = $ against	Eurobarometer 2011(Nov), 2012, 2013, 2014, 2015
Support further enlargment of the EU	"Please tell me for each state- ment, whether you are for it or against it: further enlargement of the EU to include other countries in future years"	1 = for; $0 = $ against	Eurobarometer 2011(Nov), 2012, 2013, 2014, 2015
Support for Eurobonds	"Please tell me whether you are in favour or opposed to the fol- lowing measures to be taken by the EU: the introduction of Eu- robonds"	1 = Strongly opposed; 2 = Fairly opposed; 3 = Fairly in favour; 4 = Strongly in favour	Eurobarometer 2013(Nov), 2014(May), 2014(Nov)
EU supervision of the bank- ing system	"For each, could you tell me whether you think it would be ef- fective or not: a central supervi- sion of the banking system at EU level"	1 = Not at all effective; $2 = $ Not very effective; $3 = $ Fairly effec- tive; $4 = $ Very effective	Eurobarometer 2013(Nov), 2014(May), 2014(Nov)
EU common financial regula- tion	"For each, could you tell me whether you think it would be ef- fective or not: a more important role for the EU in regulating fi- nancial services"	1 = Not at all effective; $2 = $ Not very effective; $3 = $ Fairly effec- tive; $4 = $ Very effective	Eurobarometer 2013(Nov), 2014(May), 2014(Nov)
EU common migration pol- icy	"For each of the following ar- eas, please tell me if you believe that more or less decision-making should take place at a European level: Immigration issues"	1 = More decision-making at a European level; $0 =$ Less decision-making at a European level	Eurobarometer 2014(Jan))
	"Please tell me for each state- ment, whether you are for it or against it: a common European policy on migration"	1 = for ; $0 = $ against	Eurobarometer $2014(Nov)$
Which actor was responsible for the conflict in Ukraine	"Who do you think is mostly to blame for the origin of conflict in Ukraine?"	1 gov. of Russian Federation; 2 gov. of Ukraine; 3 Pro-Russian activists in Ukraine; 4 Ukrainian hardline nationalist; 5 EU; 6 NATO; 7 Western EU countries; 8 USA; 9 Others; 10 Don't want to answer; 98 Don't know	Latvia's Political Survey 2014(Dec)
Is Russia a threat to the peace and security of Latvia	"The Russian state is a threat to the peace and security of Latvia	1 = Totally agree; 2 = Rather agree; 3 = Neither agree nor dis- agree; 4 = Rather disagree; 5 = Totally disagree; 8 = Don't know/No answer	Latvia's Political Survey 2014(Dec)
<i>Moderating variables</i> Share of Russian minority		Russian population as % of total population according to the 2011 Census (NUTS-3 regions)	Statistics Estonia (mother tongue), Statistics Latvia (main language spoken at home), Statistics Lithuania (ethnicity)
Proximity to Russian border		(-1) times distance from NUTS- 3 regions centroids to Russian mainland border	Author's com- putations using Python GeoPanda and equal distance projection
Share education under So- viet Union	Estimated share of years of ed- ucation attained under Soviet Union	(1991-birth)/education, assuming years education equal maximum of education class interval	Eurobarometer

**Notes:** Description of variables used. For variables with more than 2 categories, the values of the categories are reversed compared to the original question categories so that higher values indicate stronger agreement. All dependent vriables are standardized with mean 0 and standard deviation 1.

 Table A.3: Variables description (iii.)

Variable	Question/Description	Categories/Scale/Formula	Source
<i>Moderating variables</i> Export to non-EU	Proxy export per NUTS2 region to non-EU countries in year 2012	<ol> <li>Take the share of national exports that go to Non-EU countries by sector.</li> <li>Multiply with the share of Gross Value Added of that sector at the NUTS2 level.</li> <li>Sum across sectors and divide by 100 to normalize</li> </ol>	Eurostat (year 2012)
Export to EU	Proxy export per NUTS2 region to extra-EU countries in year 2012	Compute the share of Gross Value Added in each sector at NUTS2 level, then multiply with the national export share of that sector; sum across sectors and di- vide by 100 for final measure	Eurostat (year 2012)
Soviet Era persecution	"Did the government in [COUN- TRY] before [1989] [1991] engage in persecution, torture, or any acts of violence?" and "While living under the pre-[1989] [1991] government in [COUNTRY], did you or any members of your fam- ily experience any of the fol- lowing: sent to labour camp or prison for political reason?"	1 = if response is affirmative and concerns respondent and/or her/his immediate family, grand- parents, relatives, $0 = $ other- wise. Compute the state-level shar eof respondents for which bi- nary value assumes values 1 and multiply by 10	LiTS Survey 2016
Control variables	<i>"</i>		
Age Gender: female	"How old are you?" "Gender"	1 - female:  0 - male	Eurobarometer
Rural area or small towns	"Would you say you live in a? Rural area or village; Small or middle sized town"	1 = narked; 0 = not marked 1 = marked; 0 = not marked	Eurobarometer
Large town	"Would you say you live in a? Large town"	1 = marked; 0 = not marked	Eurobarometer
Education level 1	"How old were you when you stopped full-time education: up to 15 years or no education"	1 = marked; 0 = not marked	Eurobarometer
Education level 2	"How old were you when you stopped full-time education: 16- 19 years"	1 = marked; $0 = $ not marked	Eurobarometer
Education level 3	"How old were you when you stopped full-time education: 20 wears and older: still studying"	1 = marked; $0 = $ not marked	Eurobarometer
Marital status: single	"Which of the following best cor- responds to your own current sit- uation?"	1 = single, divorced or separated, widow; $0 =$ married or remarried, single living with a partner	Eurobarometer
Retiree	"What is your current occupa- tion?"	1 = retired or unable to work through illness; $0 =$ else	Eurobarometer
Labor market status: em- ployed	"What is your current occupa- tion?"	1 = employed or self-employed;  0 $= else$	Eurobarometer
Labor market status: unem- ployed	"What is your current occupa- tion?"	1 = unemployed or temporarily not working: $0 =$ else	Eurobarometer
Labor market status: inac- tive	"What is your current occupa- tion?"	1 = responsible for ordinary shopping and looking after chil- dren, student, retired or unable	Eurobarometer
Questionnaire language:		to work through illness; $0 = \text{else}$ 1 = Russian language of the ques- tionnaire: $0 = \text{else}$	Eurobarometer
GDP per capita growth	GDP per capita (GDP per capita in $2010 = 100$ )	tionnane, 0 – eise	World Bank
Inflation rate	Inflation, consumer prices (an-		World Bank
Youth unemployment rate	Unemployment, youth total (% of total labor force ages 15-24) (modeled ILO estimate)		World Bank
Legislative election that year		1 if there was a legislative elec- tion in the country in this year; 0	Database of Po- litical Institutions
Member of the Eurozone		otherwise 1 if the country is the member of the Eurozone; 0 otherwise	(DPI) Own coding

**Notes:** Description of variables used. For variables with more than 2 categories, the values of the categories are reversed compared to the original question categories so that higher values indicate stronger agreement. All dependent variables are standardized with mean 0 and standard deviation 1.

### Table A.4: Descriptive statistics

	Obs.	Mean	Std. Dev.	Min.	Max.
DiD variables					
High-threat	132118	0.19	0.39	0.00	1.00
Post-treatment	132118	0.67	0.47	0.00	1.00
Dependent variables					
EU identity	76997	2.54	0.88	1.00	4.00
Sense of EU citizenship	121582	2.79	0.93	1.00	4.00
European versus national identity	112401	0.58	0.49	0.00	1.00
Trust in the EU	115180	0.54	0.50	0.00	1.00
Trust in the European Parliament	112172	0.60	0.49	0.00	1.00
Trust in the European Commission	107105	0.59	0.49	0.00	1.00
Country better face the future within the EU	106848	3.01	1.04	1.00	5.00
Globalisation a growth opportunity	99205	2.67	0.83	1.00	4.00
EU makes cost of living cheaper	38843	2.18	0.87	1.00	4.00
EU makes doing business easier	61101	2.81	0.83	1.00	4.00
EU means unemployment	132118	0.11	0.31	0.00	1.00
Support the EU common defence	121339	0.85	0.35	0.00	1.00
Support the EU common foreign policy	118056	0.77	0.42	0.00	1.00
Support further enlargment of the EU	113747	0.62	0.49	0.00	1.00
Support for Eurobonds	59867	2.55	0.95	1.00	4.00
EU supervision of the banking system	72897	3.01	0.84	1.00	4.00
EU common financial regulation	72244	2.93	0.79	1.00	4.00
EU common migration policy	50654	0.70	0.46	0.00	1.00
<b>7</b> <i>4</i> 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					
Moderating variables	120110	6.25	14.46	0.00	81 57
Share education under Soviet Union	132110 132118	0.30 72.20	14.40 38.05	0.00	100.00
Export index: extra EU	30060	32.85	3 60	0.00 27.76	100.00
Export index: extra-EU	30060	32.80 32.33	5.09 4.42	21.10	44.70 50.30
Bespondents or family persecuted	10379	02.00	4.42	0.12	0.39
Respondents of family persecuted	10572	0.24	0.00	0.12	0.00
Control variables					
Age	125555	47.42	17.83	15.00	99.00
Gender: female	125555	0.53	0.50	0.00	1.00
Rural area or small town (ref. level)	125555	0.70	0.46	0.00	1.00
Large town	125555	0.30	0.46	0.00	1.00
Education level 1 (ref. level)	125555	0.10	0.30	0.00	1.00
Education level 2	125555	0.55	0.50	0.00	1.00
Education level 3	125555	0.35	0.48	0.00	1.00
Marital status: single	125555	0.35	0.48	0.00	1.00
Number of children in the household	125555	0.47	0.91	0.00	25.00
Labor market status: employed (ref. level)	125555	0.54	0.50	0.00	1.00
Labor market status: unemployed	125555	0.08	0.28	0.00	1.00
Labor market status: inactive	125555	0.38	0.48	0.00	1.00
GDP per capita	125555	14826.94	4200.03	7019.17	23349.57
Inflation rate	125555	1.59	1.76	-1.54	5.79
Youth unemployment rate	125555	19.66	6.50	6.73	34.06
Legislative election held in the year	125555	0.32	0.47	0.00	1.00

**Notes:** This table presents the following statistics for the outcomes, treatment and control variables: number of observations, average value, standard deviation, maximum value, and minimum value. The sources and descriptions of the variables can be found in Tables A.1- A.3

	Low-	threat	High-	High-threat		
	Pre-treatment	Post-treatment	Pre-treatment	Post-treatment	Trend difference	Trend difference
	(mean)	(mean)	(mean)	(mean)	(estimate)	(p-value)
Age	44.90	46.33	43.72	47.68	2.673	0.014
Gender: female	0.52	0.52	0.55	0.55	0.007	0.727
Rural area or small town (ref. level)	0.70	0.71	0.72	0.69	-0.050	0.193
Large town	0.30	0.29	0.28	0.31	0.050	0.193
Education level 1 (ref. level)	0.11	0.11	0.05	0.05	0.002	0.791
Education level 2	0.55	0.54	0.48	0.45	-0.023	0.458
Education level 3	0.34	0.35	0.46	0.50	0.020	0.497
Marital status: single	0.37	0.34	0.42	0.40	0.010	0.718
Number of children in the household	0.44	0.45	0.53	0.52	-0.027	0.613
Labor market status: employed (ref. level)	0.50	0.52	0.55	0.56	-0.012	0.597
Labor market status: unemployed	0.10	0.09	0.08	0.07	-0.005	0.513
Labor market status: inactive	0.40	0.39	0.37	0.38	0.017	0.476

Table A.5: Balance table: pre- versus post-treatment trend differences, event window 2012-2014

Notes: This table presents the average values of the individual socio-economic characteristics in high-threat and low-threat EU member states, in the Pre-treatment (2012-2013) and Post-treatment (2014) periods. The sample includes waves used in the baseline estimation: 2012(May), 2013(Nov), 2014(Nov). The descriptions of the variables can be found in Tables A.1 and A.2. To test whether the differences in age could be biasing the treatment effect estimate, I also estimate results separately for three age groups in Table A.7. There is a consistent positive effect, which is largest for the oldest age group.

*Interpretation:* High-threat states seem to age somehow faster, potentially due to higher out-migration. This could create a bias in either direction. The effect might be upward biased if it is stronger on older cohorts who have personal memories of Soviet rule. It might be downward biased as younger respondents have a stronger EU identity. Table A.7 and Figure A.1 assess the size of these potential biases. It turns out both are of similar magnitude, but small, and the net bias in all likelihood negligible.

	Low-threat		High-threat			
	Pre-treatment	Post-treatment	Pre-treatment	Post-treatment	Trend difference	Trend difference
	(mean)	(mean)	(mean)	(mean)	(estimate)	(p-value)
Age	44.98	48.48	43.86	50.24	2.895	0.006
Gender: female	0.52	0.53	0.55	0.55	0.003	0.796
Rural area or small town (ref. level)	0.70	0.71	0.72	0.67	-0.061	0.028
Large town	0.30	0.29	0.28	0.33	0.061	0.028
Education level 1 (ref. level)	0.11	0.11	0.05	0.05	0.006	0.438
Education level 2	0.55	0.57	0.49	0.47	-0.031	0.189
Education level 3	0.34	0.32	0.46	0.47	0.025	0.382
Marital status: single	0.36	0.32	0.41	0.39	0.009	0.596
Number of children in the household	0.45	0.46	0.54	0.52	-0.025	0.425
Labor market status: employed (ref. level)	0.50	0.55	0.54	0.56	-0.029	0.146
Labor market status: unemployed	0.11	0.08	0.09	0.07	0.007	0.364
Labor market status: inactive	0.40	0.37	0.37	0.37	0.022	0.324

Table A.6: Balance table: pre-treatment versus post-treatment, extended event window 2012-2018 (incl. refugee crisis)

Notes: This table presents the average values of the individual socio-economic characteristics in high-threat and low-threat EU member states, in the Pre-treatment (2012-2013) and Post-treatment (2014-2018) periods. The descriptions of the variables can be found in Tables A.1 and A.2

	(1)	(2)	(3)
	15-39 years old	40-64 years old	65 years old or more
	Coef./SE/p-value	Coef./SE/p-value	Coef./SE/p-value
High-threat $\times$	0.090	0.180	0.321
Post-treatment	(0.044)	(0.061)	(0.105)
	[0.046]	[0.004]	[0.003]
Member state FE	yes	yes	yes
Time FE	yes	yes	yes
Adj. R-Squared	0.04	0.07	0.09
Ν	8644	11184	5056

 Table A.7: DiD results for EU identity: estimate effect across age groups to assess bias due to age trend differences

**Notes:** Regressions coefficients with standard errors in parentheses and p-values in square brackets (clustered at the regional level). Outcome is standardized. Column 1 shows the results for respondents aged 15-39 years old, column 2 shows the results for respondents aged 40-64 years old, and column 3 shows the results for respondents aged 65 years old or older. All regressions control for individual characteristics including gender, age, education level, labor market status, urban versus rural areas, marital status, and presence of children, time and member state fixed effects, as well as state characteristics including GDP per capita growth, inflation rate, youth unemployment rate, and a dummy for legislative elections held. The event period covers the Eurobarometer waves spring 2012 until autumn 2014.

Interpretation: The treated states have a somehow stronger aging trend (their average age increased by 2.673 years more than it increased in the control group). This could bias in the direction of our effect if older cohorts would react stronger to the increased threat towards expressing a stronger EU identity. To some extent, this is actually the case. Moving up from the second to the third age group in the table – an increase in average age of 20 years – leads to an effect that is about 0.14 stronger. A back-of-the-envelope calculation would thus suggest that the 2.673 years trend difference reflects at maximum a change of  $\frac{2.673}{20} \times 0.14 = 0.019$ .

Less younger people could also bias against our main effect as there are fewer younger people who have on average a stronger EU identity. A simple correlational exercise shows that each additional year of age decreases the EU identity by 0.0068. Thus, a relative faster aging in high-threat group would result in a downward bias of the treatment effect of  $2.673 \times 0.0068 = 0.018$ . Hence, these, arguably naive, exercises suggest that a net bias due to the age changes should would be 0.018 - 0.019 = -0.001. This would be a negligible bias against our main effect direction, which has an effect size of 0.167.



Figure A.1: Net potential bias due to age trend differences is negligible



Figure A.2: More detailed maps about expansion of the EU



Figure A.3: Perceived EU values and EU identity in EU Eastern member states

**Notes:** Figure A.3a shows the fraction of respondents in the pre-treatment period in Eastern European EU member states who selected given values representing EU. Figure A.3b shows the average *EU identity*, in preand post-treatment periods in Eastern European EU member states. Pre-treatment period includes years 2012-2013, and post-treatment period includes years 2014-2018.

Figure A.4: Increase in perceived adequacy of EU actions in the area of the protection of external borders (2016-2018)



**Notes:** Figure shows the 2016-2018 increase in the percentage of respondents who perceived EU actions in the area of the protection of external borders as adequate.

Figure A.5: Increase in perceived adequacy of EU actions in the area of security and defence policy (2016-2018)



**Notes:** Figure shows the 2016-2018 increase in the percentage of respondents who perceived EU actions in the area of security and defence policy as adequate.

Figure A.6: Top EU security challenges: security of external borders and war (March 2015)



**Notes:** Figure shows the percentage of respondents who selected "Insecurity of the EU's external borders" or "Civil wars and wars" as one of the three most important current security challenges for the EU citizens.



Figure A.7: Share of respondents in the country that experienced persecution

**Notes:** Figure shows the national share of respondents to LiTS survey who experienced persecution from government in their country before 1989 (for those countries outside former Soviet Union) or before 1991 (for those countries in former Soviet Union). The variable captures the share of affirmative answers to two questions: "did the government engage in persecution, torture or any act of violence against you or your family?" and "while living under the pre 1989/1991 government were you or your family sent to labour camp or prison for political reasons?"

## Supportive statements by EU heads of states and Commission and EU sanctions

Table A.8:	Statements of suppo	rt and cooperation	ı by EU	leaders targeted at	eastern member	states after Cr	imea
------------	---------------------	--------------------	---------	---------------------	----------------	-----------------	------

Date	Statement
8/18/2014	"We must also now supplement this with further exercises and maneuvers, so that we can react swiftly
	and without hesitation. $[\dots]$ Everything must be done so that we have the infrastructure in the Baltic
	states to react quickly." Germany's Chancellor Angela Merkel, on a visit to the Latvian capital, Riga. <sup>9</sup>
9/9/2015	"We will also need to maintain our unity. We need unity when it comes to the security of our
	Eastern Member States, notably the Baltics. The security and the borders of EU Member States are
	untouchable. I want this to be understood very clearly in Moscow." Jean-Claude Juncker, President
	of the European Commission. <sup>10</sup>
10/08/2015	We are "committed to supporting the sovereignty of the democratic nations of eastern Europe" <i>Michael</i>
	Fallon, the UK defence secretary. <sup>11</sup>
3/1/2017	"The military potential that the Russian Federation has built up here at the border [with the Baltic
	states] is completely irrational. [] [German troops will remain at the Lithuanian base] as long as
	needed." German Foreign Minister Sigmar Gabriel in a news conference in Riga, Latvia. <sup>12</sup>

<sup>&</sup>lt;sup>9</sup> See https://www.euractiv.com/section/global-europe/news/merkel-pledges-military-support-to-baltic-states/?fbclid=IwAR0FMt\_ 8KkRQ3zkibmIKptVfh\_GikaLbQa6jhOh8KY4JPpZBltYOrIHBVuM, last accessed July 23, 2020

<sup>&</sup>lt;sup>10</sup>See https://ec.europa.eu/commission/presscorner/detail/en/SPEECH\_15\_5614, last accessed July 23, 2020

 $<sup>^{11}</sup> See \ https://www.ft.com/content/90e18d64-6d06-11e5-8171-ba1968cf791a, \ last \ accessed \ July \ 23, \ 2020 \ Last \ accessed \ July \ 23, \ 2020 \ Last \ accessed \ July \ 23, \ 2020 \ Last \ accessed \ July \ 23, \ 2020 \ Last \ accessed \ July \ 23, \ 2020 \ Last \ accessed \ July \ 23, \ 2020 \ Last \ accessed \ July \ 23, \ 2020 \ Last \ accessed \ July \ 23, \ 2020 \ Last \ accessed \ July \ 23, \ 2020 \ Last \ accessed \ July \ 23, \ 2020 \ Last \ accessed \ July \ 23, \ 2020 \ Last \ 23, \ 23$ 

<sup>&</sup>lt;sup>12</sup>See https://www.reuters.com/article/us-nato-defence-baltics-germany/germany-says-to-keep-soldiers-in-baltics-as-long-asneeded-idUSKBN1691UR, last accessed July 23, 2020

3/1/2017	"Estonia, and our friends from Lithuania, Latvia and Poland, can rely on us." Future EU Commission
	leader and then German defense minister Ursula von der Leyen to reporters at an air base in Amari,
	Estonia. <sup>13</sup>
9/4/2018	"This choice of Europe you made is all the more important in a very troubled and uncertain inter-
	national context. This situation compels us to pursue the close cooperation between our countries."
	French President Emmanuel Macron to the Baltic leaders. <sup>14</sup>
2/4/2019	"We want to make clear that Lithuania is not alone and will never stand alone. It will never again have
	to sacrifice its freedom and independence." Future EU Commission leader and then German defense
	minister Ursula von der Leyen to reporters during a visit to the German forces in Rukla military base,
	Lithuania. <sup>15</sup>

Table A.9: Sanctions related to the Russian invasion in Ukraine - sending a signal of EU-cooperation as response to crisis

Date	Description
3/5/2014	EU introduced freezing of assets of former Ukrainian officials.
3/17/2014	EU introduced travel bans and freezing of assets against individuals involved in Crimea annexation.
7/31/2014	EU introduced embargo on arms and related material, controls on export of equipment for oil industry,
	and restrictions on financial instruments.
12/18/2014	EU banned investments in Crimea.

<sup>&</sup>lt;sup>13</sup>See https://www.reuters.com/article/us-nato-defence-baltics-germany/germany-says-to-keep-soldiers-in-baltics-as-long-asneeded-idUSKBN1691UR, last accessed July 23, 2020

<sup>&</sup>lt;sup>14</sup>See https://www.baltictimes.com/macron\_france\_to\_stand\_by\_baltic\_countries\_on\_security/, last accessed July 23, 2020

<sup>&</sup>lt;sup>15</sup>See https://www.voanews.com/europe/germany-vows-keep-troops-lithuania-invest-more-barracks, last accessed July 23, 2020.

## Appendix B Psychological theories

(a) Insights from social psychology theories of group identity

*Evolutionary Theory:* optimal group size depends on context. Higher level and larger groups more useful for defence and **protection under threat**. Group identity is a mechanism to internalize group goals and establish trust to enable cooperation.

Realistic Conflict Theory: which groups have shared goals under threat.

Self-Categorization Theory: social identity is context dependent.

- Comparative Fit: Threat influences identity of group that is made **salient** through contrast created by potential conflict.
- Relative Accessibility: past experiences and current needs influence values and goals; identification is dependent on whether a group **shares values and goals** under threat.

*Group-Based Control Theory:* personal control is lowered by threat; individuals identify with groups perceived as offering **protection under threat** in order to restore sense of control.

(b) Application to Eastern European member states

Salience: Threat increases salience of potential conflict; salience of EU increases by media contrasting Russia against EU. Post-Crimea EU sanctions against Russia enforce salience of EU.

**Shared goals and values:** salient goal becomes defence against Russia. This is a shared goal with EU, which is perceived as defending against global threats and offering protection. Due to past experience, Russia threatens values such as individual freedom, peace, democracy, and human rights, which are associated with the EU.

**Protection under threat:** EU is perceived as offering some protection for its citizens and helping to tackle global threats by a clear majority.

Figure B.1: Psychological theories and the Russian threat to EU member states

# Appendix C Measuring Russian threat using Google Trends and newspapers articles

We use two approaches and sources to measure the perception of Russian threat in the media: count and exploratory NLP analysis of articles downloaded from Factiva platform and time-series of Google Trends topics. We described the two methods in the following sections.

### C.1 Factiva and NLP analysis

We use Factiva, an online repository of newspapers and news agencies. We adopt a twofold approach. The first consists in counting the number of articles provided as result of queries run in the platform. We proceed with the following steps:

- 1. we identify (when possible) the most relevant English news agency in each state;
- 2. we define a relevant query: "Russi\* and (threat or risk or danger or aggression or annex\* or invasion) and *state/nationality* not Gazprom", where *state/nationality* changes according to state, the star "\*" captures all potential suffixes to the word's stem and *not* exclude words listed after;
- 3. we run the query for an interval windows of six months for each state in the year before and after Crimea's invasion, that happened on  $20^{th}$  February 2014;
- 4. we count the number of articles Factiva returns as results of the query for each statetime interval, normalizing to the period before the invasion, as shown in Figure 3a.

The second approach consists of an NLP exploratory analysis. We use *The Baltic Times* newspaper that is structured in three sections, a section for each one of the Baltic states: Estonia, Latvia and Lithuania. In Figure C.1 we provide a schematic visualization of the steps followed for this approach, which are then described in detail in the subsequent paragraph. In Table C.1 we provide descriptive statistics for results of NLP analysis.

Figure C.1: Flowchart NLP approach using The Baltic Times articles retrieved in Factiva



- 1. we define a relevant query: "Russi\* or Ukrain\* or Crime\*", where the star "\*" captures all potential suffixes to the word's stem;
- 2. we run the query within *The Baltic Times* in the year before and after Crimea's invasion and we download the resulting articles in *html* format;
- 3. we process the *html* file in R, creating an article level dataset containing article's ID,

title, date of release and text corpus, for all downloaded articles;

- 4. we use the function *sentencizer* from Python's library *Spacy* to divide each article in its constitutive sentences and we drop identical sentences to solve the potential problem of duplicates among downloaded articles;
- 5. we build the *FEAR* dictionary using the *NRC Emoticon Intensity Lexicon* dictionary, which groups thousands of words in macro-groups (anger, fear, etc.) and assigns a score in the interval [0, 1] within each macro-group; we only keep words in the macro-group of *fear* with a score > 0.5; we augment the list with five words absent from the dictionary but present in the search terms of the first approach: *invasion, invaded, annexation, annexated* and *occupation*;
- 6. we select sentences containing all of the following: the *state* name or relative *nationality*, the words *Russia* or *Russian* and one or more words belonging to the *FEAR* dictionary;
- 6.a when selecting sentences for Estonia and Latvia we impose an exclusion restriction for *Lithuania/Lithuanian*, to exclude sentences where the latter words appear along with *Estonia/Estonian* and/or *Latvia/Latvian*;
- 7. we count the number of selected sentences for each state in the year before and after Crimea's invasion, aggregating in six-months periods and normalizing to the period before the invasion, as shown Figure 3b.

		No. sentences containing: A= $state/nationality$ and words $Russia$ or $Russian$		No. sen A plus to Fl	tences c words b EAR dic	ontaining: pelonging tionary	
	No. articles	Estonia	Latvia	Lithuania	Estonia	Latvia	Lithuania
-12 to -6	100	22	75	49	4	24	13
-6 to 0	89	20	30	39	4	7	11
0 to 6	83	36	89	38	11	25	16
6 to 12	151	66	123	81	23	44	36

 Table C.1: Descriptive statistics of NLP analysis for each country and each 6-months period from Crimea's invasion

**Notes:** Table reports descriptive statistics for results of NLP approach using Factiva articles from *The Baltic Times.* Table reports the

#### Figure C.2: Examples of sentence-output NLP analysis

(a) Estonia and Latvia
• The Russian propaganda is especially dangerous in Latvia and Estonia, where the Kremlin can exploit a nostalgia for the Soviet empire among numerous Russian-speakers in those two countries.
• Areas of concern The question of how to best integrate the Russian minority into Estonian and Latvian society is often discussed, more so since the situation in Ukraine.
• Officials in the town of Narva have said that Estonian politicians have only started paying attention to its Russian speakers since the crisis in Ukraine.
• However, a frozen conflict in eastern Ukraine may suffice for Kremlin for the time being, as there is another card hiding up Putin's sleeve: Latvia, the weakest chain in the Baltics and the home of the Kremlin's potential Trojan horse – the Russian-speaking minority.
• Individually, these people are not a risk to Latvia's security; however, taking into account Russia's rhetoric, that they are prepared to 'defend' their citizens abroad, this circumstance can increase risks to Latvia's security in the future," Ulmanis emphasized.
• The reason that many are watching the election outcome is to see what effect the Russian invasion on Ukraine has had on another similar situation like in Ukraine existing in Latvia.
• Due to extensive Russian capabilities and Latvian military incapabilities, some analysts think that Russia could invade Latvia within a matter of hours.
(b) Lithuania
• The next morning's discussions continued along similar lines, with opening remarks from Lithuanian Minister of Foreign Affairs Linas Linkevicius, who called Russia's recent aggression "a moral threat, not just a military or political one."
• Unlike other leaders, who still opt to use more vague and diplomatic language when describing the situation in Ukraine, Lithuanian President Dalia GrybauskaitÄ— pulls no punches toward Russian President Vladimir Putin and his policies, recently calling Putin's Russia a "terrorist state."
• First President Dalia Grybauskaite submitted several legislative proposals, aiming to curb the dissemination of Russian propaganda - a powerful tool in Russian information warfare against Lithuania - and, recently, the Lithuanian Ministry of Culture also amended some laws.

**Notes:** the figure reports examples of sentences from *The Baltic Times*, captured by the NLP analysis; quotes are taken from sentences selected in the last two periods: between  $20^{th}$  February 2014 and  $20^{th}$  August 2014, between  $21^{th}$  August 2014 and  $20^{th}$  February 2015.

### C.2 Google Trends topics

Google Trends allows tracking the search intensity for certain individual keywords or topics over time, which I use as a proxy for the perceived intensity of the threat posed by Russia. Using keywords or combinations thereof has the big disadvantage that the relevant terms and the way they are combined differs between languages. E.g. in state A users might google "Russian forces" and in state B "Russian army", and one would need to come up with all variations and their correct translations to enable a meaningful comparison across states.

As an alternative, google offers so called "topics", which are defined as a group of terms that share the same concept in any language. The disadvantage of that is that google does not publish its algorithm and the list of terms contained in each language. The big advantage is that those topics are automatically translated and capture what google determines as relevant terms related to that topic. There were five topics that plausibly relate to a threat by Russia and the incident in Ukraine and Crimea: "Russian Armed Forces", "Russia", "Vladimir Putin", "Ukraine", and "Crimean Peninsula."

I then download the 'Interest over time' monthly data on the 5 topics separately for the 9 Eastern EU member states. Next, I calculate the average interest in the 9 countries for each topic. Finally, I calculate the average of interest in 5 topics. The measure is an index scaled on a range of 0 to 100. Figure C.3 shows the interest in those topics over time. The graph confirms that there was a spike upwards in the perceived intensity of the Russian threat in March 2014, and that search intensity remained on average higher afterwards.



Figure C.3: Russian threat perception in high-threat states (2011-2015)

**Notes:** Figure shows the average intensity of searches for 5 topics ("Russian Armed Forces", "Russia", "Vladimir Putin", "Ukraine", and "Crimean Peninsula") in Eastern EU member states.

## Appendix D Additional results

Table D.1: Putting effect size on EU identity into perspective

Event	Size	Main effect relative to others
Main coefficient (Russian threat)	0.167	
Change in EU identity in Ireland (Brexit)	0.120	139%
Standard deviation across EU member states	0.193	86.5%

**Notes:** Second column uses the raw change in EU identity in Ireland, comparing the year before with the year after Brexit (using Brexit as an economic threat to Ireland's well-being). The bottom row shows the standard deviation across EU member states before Crimea.

Figure D.1: Leads and lags: EU identity (2012-2018 event window) - no macro controls



**Notes:** Figure displays coefficients and 95% confidence intervals from regressions of *EU identity* on leads and lags of the interaction of time dummy variable and *High-threat*. All outcomes are standardized. We control for individual characteristics including gender, age, education level, labor market status, urban versus rural areas, marital status, and presence of children. We also control for time fixed effects and member state fixed effects. Standard errors are clustered at the regional level.

*Interpretation:* With a longer event window, there are more overlapping other events that differ between high- and low-threat states. Hence the estimates become noisier. State-year specific control variables help to account for these other changes, as in the baseline test in ??. This specification demonstrates that the estimates are significantly noisier compared to using the appropriate macro-controls.

Figure D.2: Persistence with leads and lags: measures of trust and cooperation (event window 2012-2018)



**Notes:** Figure D.2a displays coefficients and 95% confidence intervals from regressions of a trust measure on leads and lags (wave 1 in each year) of the interaction of time dummy variable and *High-threat* using the main specification from Figure 4. The measure is obtained averaging three variables: trust in the EU, trust in the EU Parliament and trust in the EU Commission. Year 2013 (wave 2) is taken as reference period; standard errors are clustered at the regional level. We use same controls employed in the main specification of our analysis. We also added a set of macro controls: GDP growth index, inflation, youth unemployment and a variable indicating whether legislative election have been held. Figure D.2b shows the corresponding model using a measure of cooperation support obtaining averaging three measures: support for common defense, support for common foreign policy and support for enlarging the EU.

#### Estonians, Latvians and Lithuanians living abroad



Figure D.3: Comparison with citizen from high-threat member states living abroad

**Notes:** Figure displays a before/after treatment comparison of sense of attachment to EU; blue bars represent before/after averages for those individuals in high-threat countries. Red bars represent averages for those individuals whose nationality is either Estonian or Latvian, who live neither in Estonia nor in Latvia. We use all survey's waves before and after Crimea's invasion for which variable sense of attachment to EU is available; there are two waves available before and seven after. Estonian and Latvian individuals interviewed in Estonia and Latvia are 3261 before and 11235 after. Estonian and Latvian individuals interviewed abroad are 39 before and 272 after Crimea's invasion

Table D.2: Estonians and Latvians abroad: EU identity (2012-2018 event window)

	(1)	(2)
	EU identity	EU identity
	Coef./SE/p-value	Coef./SE/p-value
High-threat $\times$	0.213	0.144
Post-treatment	(0.167)	(0.148)
	[0.205]	[0.331]
Post-treatment	0.044	
	(0.160)	
	[0.783]	
Member state FE	no	yes
Time FE	no	yes
Adj. R-Squared	0.06	0.09
Ν	14435	14435

**Notes:** Regressions coefficients with standard errors in parentheses and p-values in square brackets (clustered at the regional level). We use the full availability of outcome variable, between 2012 and 2018. Column 1 and 2 show the DiD coefficients (High-threat dummy is not displayed in column 1). *EU identity* is standardized with mean 0 and variance 1. All regressions control for individual characteristics including gender, age, education level, labor market status, urban versus rural areas, marital status, and presence of children.

	(1)	(2)
	EU identity	EU identity
	Coef./SE/p-value	Coef./SE/p-value
High-threat $\times$	0.168	0.157
Post-treatment	(0.038)	(0.046)
	[0.000]	[0.001]
Western EU		-0.016
low-threat $\times$		(0.036)
Post-treatment		[0.667]
Member state FE	yes	yes
Time FE	yes	yes
Adj. R-Squared	0.07	0.07
Ν	69721	69721

Table D.3: DiD results for EU	J identity $(2012-2014 \text{ event})$	window) - adding	Western EU states.
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**Notes:** Regressions coefficients with standard errors in parentheses and p-values in square brackets (clustered at the regional level). All outcomes are standardized. Regressions control for individual characteristics including gender, age, education level, labor market status, urban vs. rural, marital status, and presence of children. Column 1 adds Western EU states to the low-threat control group. Column 2 shows that Western EU low-threat states did not react differently than Eastern EU low-threat states, leaving eastern EU low-threat states out as the reference group.



Figure D.4: EU identity: Pre- vs- Post-treatment

Notes: Average *EU identity* in pre- and post-treatment periods.

### D.1 Jack-knife drop

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	w/o BG	w/o CZ	w/o HU	w/o LT	w/o PL	w/o RO	w/o SK	w/o V4
	Coef./SE/p-value							
High-threat $\times$	0.125	0.160	0.168	0.176	0.172	0.191	0.178	0.184
Post-treatment	(0.043)	(0.049)	(0.048)	(0.048)	(0.048)	(0.047)	(0.049)	(0.068)
	[0.005]	[0.002]	[0.001]	[0.001]	[0.001]	[0.000]	[0.001]	[0.010]
Member state FE	yes							
Time FE	yes							
Adj. R-Squared	0.07	0.05	0.08	0.06	0.06	0.07	0.07	0.06
N	21994	21925	21897	22017	22202	22033	21931	13303

Table D.4: DiD results for EU identity: Robust to leave-one-out of control group test

**Notes:** Regressions coefficients with standard errors in parentheses and p-values in square brackets (clustered at the regional level). All outcomes are standardized. In each column we show the results after excluding one member state from the control group: Bulgaria in column 1, Czechia in column 2, Hungary in column 3, Lithuania in column 4, Poland in column 5, Romania in column 6, Slovakia in column 7. In column 8, we exclude 4 countries that belong to Visegrád Group (Czechia, Hungary, Poland, Slovakia). In all regressions, we control for individual characteristics including gender, age, education level, labor market status, urban versus rural areas, marital status, and presence of children. We also control for time fixed effects and member state fixed effects. The event period covers the Eurobarometer waves spring 2012 until autumn 2014.

## D.2 EU identity and support for common policies

	(1)	(2)	(3)
	Support for the	Support for the	Support for
	EU Common Defense	EU Common Foreign Policy	Further Enlargment of the EU
	Coef./SE/p-value	Coef./SE/p-value	Coef./SE/p-value
EU identity	0.189	0.258	0.193
	(0.067)	(0.062)	(0.068)
	[0.010]	[0.000]	[0.009]
Macro controls	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Adj. R-Squared	0.32	0.43	0.59
Ν	189	189	189

 Table D.5: Pooled OLS model: stronger identity correlates with more support for common policies

**Notes:** Table displays coefficients of three pooled country-level time-series regressions, with standard errors, clustered at the member state level, in parentheses and p-values in square brackets. EU identity and dependent variables are standardized with a mean of zero and a standard deviation of one. We control for year fixed effects and state characteristics including GDP per capita, inflation rate, youth unemployment rate, and a dummy for legislative elections held. The sample consists of 28 member states, and data are aggregated at the member state level. Standard errors, clustered at the member state level, are in parentheses and p-values in square brackets.

Table D.6: Fixed effects: stronger identity correlates with more support for common policies

	(1)	(2)	(3)
	Support for the	Support for the	Support for
	EU Common Defense	EU Common Foreign Policy	Further Enlargment of the EU
	Coef./SE/p-value	Coef./SE/p-value	Coef./SE/p-value
EU identity	0.224	0.260	0.213
	(0.038)	(0.054)	(0.053)
	[0.000]	[0.000]	[0.000]
Macro controls	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Adj. R-Squared	0.25	0.28	0.34
Ν	189	189	189

**Notes:** Table displays coefficients of four individual fixed effects regressions, with standard errors, clustered at the member state level, in parentheses and p-values in square brackets. EU identity and dependent variables are standardized with a mean of zero and a standard deviation of one. We control for year fixed effects and state characteristics including GDP per capita, inflation rate, youth unemployment rate, and a dummy for legislative elections held. The sample consists of 28 member states, and data are aggregated at the state level.

	(1)	(2)	(3)
	Support for the	Support for the	Support for
	EU Common Defense	EU Common Foreign Policy	Further Enlargment of the EU
	Coef./SE/p-value	Coef./SE/p-value	Coef./SE/p-value
EU identity	0.234	0.266	0.221
	(0.014)	(0.014)	(0.013)
	[0.000]	[0.000]	[0.000]
Control variables	yes	yes	yes
Member state FE	yes	yes	yes
Time FE	yes	yes	yes
Member state FE x Time FE $$	yes	yes	yes
Adj. R-Squared	0.11	0.13	0.16
N	222784	218121	214480

 
 Table D.7: Individual level correlations within countries: stronger identity correlates with more support for common policies

**Notes:** Regressions coefficients with standard errors in parentheses and p-values in square brackets (clustered at the member state level). EU identity and dependent variables are standardized with a mean of zero and a standard deviation of one. In all regressions, we control for individual characteristics including gender, age, education level, labor market status, urban versus rural areas, marital status, and presence of children. We also control for time fixed effects, member state fixed effects, interactions of time and member state fixed effects, and state characteristics including GDP per capita, inflation rate, youth unemployment rate, and a dummy for legislative elections held.

### D.3 Identity distribution



Figure D.5: Distribution of changes in EU identity in high-threat EU member states pre- versus post-treatment

**Notes:** Figure shows the percent distribution of the responses to the EU identity question in high-threat EU member states.



Figure D.6: National versus European identity

**Notes:** Figure D.6 displays the DiD coefficients and corresponding 90 and 95% confidence intervals (95 in lighter gray). Respondents of Eurobarometer were asked "do you see yourself as...?" and they could choose among *nationality and European*, *nationality and European*, *european and nationality* or *only european*. Where *nationality* stands for respondents' own nationality. Variables are missing when respondent replied *I* don't know or none or if the answer is missing. Time span is 2011-2015.

	Low-threat			High-threat		
	Pre-treatment	Post-treatment	Difference	Pre-treatment	Post-treatment	Difference
	(mean)	(mean)		(mean)	(mean)	
Heard about EU Parliament	.8569058	.8846228	.0277169	.8656155	.913388	.0477725
Hear about EU Commission	.9382463	.9519772	.0137309	.9244073	.9496809	.0252737
Understand how EU works	.5573344	.6179861	.0606517	.6097538	.7045424	.0947886
Knowledge about EU	.6774143	.7108996	.0334853	.6091715	.6422067	.0330352

Table D.8:         Balance table:         pre-treatmen	versus post-treatmen	t, window 2011-2015
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**Notes:** This table presents the average value of variables about respondents' knowledge and understanding of EU, in low- and high-threat EU members states. The same variables are used as outcome in models reported in Table

## Appendix E Full regression results

 Table E.1: Full results conditional on share of Russian minority and distance to Russia border within high-threat states (2012-2014)

	Share of Russian minority			Proximity to Russia		
	(1)	(2)	(3)	(4)	(5)	(6)
	Coef./SE/p-value	Coef./SE/p-value	Coef./SE/p-value	Coef./SE/p-value	Coef./SE/p-value	Coef./SE/p-value
Post-treatment	0.038	0.063	0.080	0.278	0.266	0.311
	(0.037)	(0.037)	(0.038)	(0.057)	(0.057)	(0.062)
	[0.304]	[0.090]	[0.034]	[0.000]	[0.000]	[0.000]
Post-treatment	0.006	0.004	0.004			
$\times$ Share of	(0.001)	(0.001)	(0.001)			
Russian minority	[0.000]	[0.003]	[0.011]			
Post-treatment				0.001	0.001	0.001
$\times$ Proximity				(0.000)	(0.000)	(0.000)
to Russian border				[0.016]	[0.025]	[0.007]
Member state FE	no	yes	no	no	yes	no
Region FE	no	no	yes	no	no	yes
Adj. R-Squared	0.06	0.08	0.09	0.06	0.08	0.09
Ν	7562	7562	7562	7562	7562	7562

**Notes:** Dependent variable is *EU identity*. All outcomes are standardized. Regressions coefficients with robust standard errors in parentheses and p-values in square brackets. Regressions are only conducted for the high-threat states Latvia, Lithuania and Estonia. *Share of Russian minority* is a continuous variable defined as the share of Russian minority in region's population. In all regressions, we control for individual characteristics including gender, age, education level, labor market status, urban versus rural areas, marital status, and presence of children. In columns 2 and 5, we additionally control for member state fixed effects. In columns 3 and 6, we additionally control for region fixed effects (NUTS-3 level).

#### Table E.2: Full results for all outcome variables (2012-2014)

	Measures of EU identity					
	(1)	(2)	(3)			
	FUidontity	Sense of	European versus			
	LO identity	EU citizenship	National identity			
	Coef./SE/p-value	Coef./SE/p-value	Coef./SE/p-value			
High-threat $\times$	0.167	0.151	0.127			
Post-treatment	(0.046)	(0.029)	(0.035)			
	[0.001]	[0.000]	[0.001]			
Member state FE	yes	yes	yes			
Time FE	yes	yes	yes			
Adj. R-Squared	0.07	0.12	0.09			
Ν	24884	59194	50392			

#### Psychological attitudes

	(1)	(2)	(3)	(4)
	Truct in the EU	Trust in the	Trust in the	Country better face the future
	Trust in the EU	European Parliament	European Commision	within the EU
	Coef./SE/p-value	Coef./SE/p-value	Coef./SE/p-value	Coef./SE/p-value
High-threat $\times$	0.191	0.148	0.134	0.172
Post-treatment	(0.041)	(0.044)	(0.050)	(0.041)
	[0.000]	[0.001]	[0.009]	[0.000]
Member state FE	yes	yes	yes	yes
Time FE	yes	yes	yes	yes
Adj. R-Squared	0.06	0.04	0.05	0.04
Ν	60208	58439	55564	45215

#### Economic perceptions

	(1)	(2)	(3)	(4)
	Globalisation	EU makes cost	EU makes	EU meaning:
	a growth opportunity	of living cheaper	doing business easier	unemployment
	Coef./SE/p-value	Coef./SE/p-value	Coef./SE/p-value	Coef./SE/p-value
High-threat $\times$	-0.028	-0.028	0.023	0.029
Post-treatment	(0.038)	(0.036)	(0.031)	(0.027)
	[0.465]	[0.439]	[0.456]	[0.290]
Member state FE	yes	yes	yes	yes
Time FE	yes	yes	yes	yes
Adj. R-Squared	0.05	0.08	0.07	0.04
Ν	47931	37785	37070	68405

#### Political support

	(1)	(2)	(3)	
	EU	EU common	Further enlargment	
	EU common defence	foreign policy	of the EU	
	Coef./SE/p-value	Coef./SE/p-value	Coef./SE/p-value	
High-threat $\times$	0.164	0.165	0.127	
Post-treatment	(0.031)	(0.034)	(0.026)	
	[0.000]	[0.000]	[0.000]	
Member state FE	yes	yes	yes	
Time FE	yes	yes	yes	
Adj. R-Squared	0.03	0.05	0.06	
N	63309	61754	50311	

#### Alternative identity levels

	(1)	(2)	(3)	
	EU identity	National identity	Regional identity	
	Coef./SE/p-value	Coef./SE/p-value	Coef./SE/p-value	
High-threat $\times$	0.167	-0.006	-0.086	
Post-treatment	(0.046)	(0.050)	(0.067)	
	[0.001]	[0.902]	[0.200]	
Member state FE	yes	yes	yes	
Time FE	yes	yes	yes	
Adj. R-Squared	0.07	0.09	0.08	
N	24884	25568	25574	

**Notes:** Table shows detailed regression results for Figure 4. Regressions coefficients with standard errors in parentheses and p-values in square brackets (clustered at the regional level). All outcomes are standardized. In all regressions, we control for individual characteristics including gender, age, education level, labor market status, urban versus rural areas, marital status, and presence of children. We also control for time fixed effects and member state fixed effects.

	(1)	(2)	(2)	(4)	(٢)
		(2)	(3)	(4)	(5)
	Attach EU	Attach EU	Attach EU	Attach EU	Attach EU
De et tre etre ent	Coel./SE/p-value	0.149	0.014	Coel./SE/p-value	O OFO
rost-treatment	(0.007)	0.142	(0.014)	0.040	-0.009
	(0.037)	(0.189)	(0.045)	(0.053)	(0.337)
A 40.64	[0.101]	[0.470]	[0.705]	[0.407]	[0.800]
Age 40-64	-0.180			-0.149	
	(0.073)			(0.120)	
	[0.033]			[0.245]	
Age 65-100	-0.175			-0.149	
	(0.132)			(0.166)	
	[0.216]			[0.390]	
Secondary education		0.065			
		(0.073)			
		[0.396]			
Tertiary education		0.335			
		(0.076)			
		[0.001]			
Share education			-0.003	-0.001	
under Soviet Union			(0.001)	(0.002)	
			[0.018]	[0.499]	
Export to EU					-0.009
					(0.013)
					[0.493]
Export to non-EU					0.013
					(0.021)
					[0.545]
Post-treatment	0.127			0.094	
$\times$ Age 40-64	(0.076)			(0.152)	
0	[0.123]			[0.549]	
Post-treatment	0.367			0.334	
$\times$ Age 65-100	(0.106)			(0.157)	
0	0.006			[0.059]	
Post-treatment		0.066			
$\times$ Secondary		(0.166)			
education		[0.701]			
Post-treatment		0.044			
$\times$ Tertiary		(0.173)			
education		[0.803]			
Post-treatment		[]	0.002	0.001	
× Share			(0.001)	(0.002)	
education under Soviet Union			[0.027]	[0.786]	
Post-treatment			[]	[]	0.026
$\times$ Export to					(0.008)
EU					[0.012]
Post-treatment					-0.017
× Export to					(0.015)
non-EU					[0.262]
Member state FE	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes	Yes
Adi, R-Squared	0.08	0.07	0.07	0.08	0.07
N	4695	4695	4695	4695	4695

 Table E.3: Heterogeneous effects: estimate effect across age, education groups, economic sectors and war history (also main effects)

Notes: Table shows the same models reported in Table 2 but displaying also coefficients of main effects.

	(1)	(2)	(3)	(4)
	EU identity	EU identity	EU identity	EU identity
	Coef./SE/p-value	Coef./SE/p-value	Coef./SE/p-value	Coef./SE/p-value
Post-treatment		0.042	0.041	0.027
×		(0.012)	(0.011)	(0.013)
Threat-intensity		[0.000]	[0.000]	[0.031]
Post-treatment	0.005	0.008		
	(0.016)	(0.016)		
	[0.757]	[0.640]		
Country FE	yes	no	yes	yes
Time FE	no	no	yes	yes
Country characteristics	no	no	no	yes
Adj. R-Squared	0.06	0.03	0.06	0.07
N	74923	74923	74923	72115

**Table E.4:** Full results for EU identity using interaction with continuous threat-intensitymeasure (2012-2014 event window, EU28)

**Notes:** Regressions coefficients with standard errors in parentheses (clustered at the regional level) and p-values in square brackets. Models performed on all EU28 countries excluding Malta and Cyprus for lack of information on Google Trends. *Threat-intensity* is defined by using the difference in Russian threat intensity by member states based on Google Trends in Figure 3c. *EU identity* and *Threat-intensity* are standardized with mean 0 and variance 1. Column 1 shows the pure time-variation, columns 2-4 the DiD coefficients (*Threat-intensity* is not displayed in column 2). All regressions control for individual characteristics including gender, age, education level, labor market status, urban versus rural areas, marital status, and presence of children. Member state characteristics include GDP per capita growth, inflation rate, youth unemployment rate, and a dummy for legislative elections held.

(1)	(2)	(3)	(4)	(5)
EU identity	EU identity	EU identity	EU identity	EU identity
Coef./SE/p-value	Coef./SE/p-value	Coef./SE/p-value	Coef./SE/p-value	Coef./SE/p-value
0.214	0.258	0.198	0.265	0.306
(0.062)	(0.049)	(0.056)	(0.112)	(0.117)
[0.001]	[0.000]	[0.001]	[0.021]	[0.011]
yes	yes	yes	yes	yes
yes	yes	yes	yes	yes
yes	yes	yes	yes	yes
no	yes	no	no	yes
no	no	yes	no	yes
no	no	no	yes	yes
0.07	0.07	0.07	0.07	0.07
24884	24884	24884	24884	24884
	(1) EU identity Coef./SE/p-value 0.214 (0.062) [0.001] yes yes yes yes no no no no no 0.07 24884	(1)       (2)         EU identity       EU identity         Coef./SE/p-value       Coef./SE/p-value         0.214       0.258         (0.062)       (0.049)         [0.001]       [0.000]         yes       yes         yes       yes         yes       yes         no       yes         no       no         no       no         0.07       0.07         24884       24884	(1)         (2)         (3)           EU identity         EU identity         EU identity           Coef./SE/p-value         Coef./SE/p-value         Coef./SE/p-value           0.214         0.258         0.198           0.062)         (0.049)         (0.056)           [0.001]         [0.000]         [0.001]           yes         yes         yes           yes         yes         yes           yes         yes         yes           no         yes         no           no         no         no           0.07         0.07         0.07           24884         24884         24884	(1)         (2)         (3)         (4)           EU identity         EU identity         EU identity         EU identity           Coef./SE/p-value         Coef./SE/p-value         Coef./SE/p-value         Coef./SE/p-value           0.214         0.258         0.198         0.265           (0.062)         (0.049)         (0.056)         (0.112)           [0.001]         [0.000]         [0.001]         [0.021]           yes         yes         yes         yes           yes         yes         yes         yes           yes         yes         yes         yes           no         yes         yes         no           no         no         yes         no           no         no         no         yes           0.07         0.07         0.07         0.07

Table E.5: Full DiD results: EU identity (2012-2014 event window) - robust to adding further country-level controls

**Notes:** Regressions coefficients with standard errors in parentheses and p-values in square brackets (clustered at the regional level). All outcomes are standardized. In all regressions, we control for individual characteristics including gender, age, education level, labor market status, urban versus rural areas, marital status, and presence of children. We also control for time fixed effects, member state fixed effects, and state characteristics including GDP per capita growth, inflation rate, youth unemployment rate, and a dummy for legislative elections held. Depending on the column we also control for sets of macro control variables: demographics (age dependency ratio, rural population (% of total population), crude birth rate, and life expectancy), financial flows (exports (% of GDP), and FDI inflows (% of GDP), and labor market (female labor force participation rate, and GINI index). The event period covers the Eurobarometer waves spring 2012 until autumn 2014.

	(1)	(2)	(3)	(4)
	Lithuania as high-threat	Incl. Russian minority	Longer post-treatment period	Controlling for Eurozone membership
	Coef./SE/p-value	Coef./SE/p-value	Coef./SE/p-value	Coef./SE/p-value
High-threat x	0.138	0.137	0.181	0.105
Post-treatment	(0.044)	(0.042)	(0.047)	(0.038)
	[0.002]	[0.002]	[0.000]	[0.008]
Member state FE	yes	yes	yes	yes
Time FE	yes	yes	yes	yes
Member state characteristics	no	no	yes	yes
Adj. R-Squared	0.07	0.06	0.08	0.08
Ν	24884	25869	58519	58519

 Table E.6: DiD results: robust to adding Lithuania to the treatment group, including Russian minorities in the high-threat states, using a longer post-treatment period, and controlling for Eurozone membership

**Notes:** Regressions coefficients with standard errors in parentheses and p-values in square brackets (clustered at the regional level). All outcomes are standardized. In all regressions we control for country fixed effects, time fixed effects, and individual characteristics including gender, age, education level, labor market status, urban versus rural areas, marital status, and presence of children. The regressions 3 and 4 also control for macroeconomic country characteristics such as GDP and inflation rate. The first regression includes Lithuania in high-threat group together with Estonia and Latvia in the main specification (Column 3 of Table 1). The results are robust to using this alternative treatment group. The second regression shows DiD results when the Russian minority in Latvia and Estonia is included in the high-threat state population. Column 3 shows a specification over a longer post-treatment period, ranging from 2012-2018. Column 4 controls for Eurozone membership, also using the 2012-2018 period. Lithuania and Latvia both joined the Eurozone during the event window.

Table E.7: Full DiD results: EU identity (2012-2014 event window) - robust to alternativestandard errors

	(1)	(2)	(3)	(4)	(5)	(6)
	Robust	Cluster Region	Cluster State	RI Cluster State, R=State	RI Cluster State, R=Region	RI Cluster State, R=Individual
	Coef./SE/p-value	Coef./SE/p-value	Coef./SE/p-value	Coef./SE/p-value	Coef./SE/p-value	Coef./SE/p-value
High-threat $\times$	0.167	0.167	0.167	0.167	0.167	0.167
Post-treatment	(0.035)	(0.046)	(0.057)	(0.078)	(0.067)	(0.064)
	[0.000]	[0.001]	[0.018]	[0.065]	[0.038]	[0.031]
Member state FE	yes	yes	yes	yes	yes	yes
Time FE	yes	yes	yes	yes	yes	yes
Adj. R-Squared	0.07	0.07	0.07	0.07	0.07	0.07
Ν	24884	24884	24884	24884	24884	24884

Notes: Regressions coefficients with standard errors in parentheses and p-values in square brackets. All outcomes are standardized. In the first column, we calculated robust standard errors (Stata command vce(robust)). In the second column, we calculated standard errors clustered at the regional level. In the third column, we calculated standard errors clustered at the member state level. In the fourth column, we calculated standard errors clustered at the member state level. In the fourth column, we calculated standard errors clustered at the member state level. In the fourth column, we calculated standard errors clustered at the member state level using randomization inference by assigning treatment at the member state level. In the fifth column, we calculated standard errors clustered at the member state level using randomization inference by assigning treatment at the regional level. In the sixth column, we calculated standard errors clustered at the member state level using randomization inference by assigning treatment at the regional level. In the sixth column, we calculated standard errors clustered at the member state level using randomization inference by assigning treatment at the individual level. Stata package *ritest* was used for randomization inference (Hess, 2019). In all regressions, we control for individual characteristics including gender, age, education level, labor market status, urban versus rural areas in three categories, marital status, and presence of children. We also control for time fixed effects and member state fixed effects. The event period covers the Eurobarometer waves spring 2012 until autumn 2014.

## Appendix F Confounding events and policy changes



Table F.1: Potential confounding events within event period and afterwards

Event	Date	Potential effect on EU iden- tity	Differential effect on treatment and control states	Proposed solution	
Latvia and Lithuania join the Eurozone	1/1/2014 and 1/1/2015	Positive, strengthening the sense of belonging and codependency towards the EU	Yes: affects Latvia only	Replication of the results using Eurozone dummy and extending post- treatment period (Table E.6 Column 4)	
	Event	Date	Potential effect on EU iden- tity	Differential effect on treatment and control states	Proposed solution
----	--	-------------------------	--	--	--------------------------------
37	Winter Olympics in Sochi	2/7/2014- 2/23/2014	Negative, presenting the image of a successful Russia may have weakened the EU appeal	No	-
	Plans for Nabucco gas pipeline aborted	6/2014	Negative, EU energy security appears weakened, especially in Bulgaria	Yes: The pipeline would've diversified the sources for gas in Europe (especially in BG)	Leave-one-out test (Table D.4)
	OECD announces that the accession process of Russia is suspended	3/13/2014	Positive, rally round flag effect.	No	-
	Voting Right of the Russian delegation to the Council of Europe suspended	4/10/2014	Positive, rally round flag effect.	No	-
	European Parliament elections	5/22/2014- 5/25/2014	Positive, taking part in the elec- tions of the parliament could have icreased the feeling of be- longing to the EU	No	-
	Oil price decline of 68%	6/2014- 12/2015	Not likely	No	-

Event	Date	Potential effect on EU iden- tity	Differential effect on treatment and control states	Proposed solution
US president Barack	6/3/2014	Not clear, might weaken effect	Potentially if high-threat	Estimated effect would
Obama's visit to	and	on EU identity if it signals other	states care more	then be a lower bound
Poland and Estonia	9/3/2014	options		
Proclamation of	6/29/2014	Potentially also a threat, but not	No	-
caliphate by the Is-		as large		
lamic State of Iraq and				
the Levant				
Flight MH17 shot	7/17/2014	Positive, rally round flag effect.	No	-
down in Ukraine				
NATO adopts Readi-	9/5/2014	Not likely, might weaken effect	NATO measures focused on	Unlikely. If yes, my results
ness Action Plan to		on EU identity if it signals other	countries on the periphery	could be a lower bound for
strengthen collec-		options	of the alliance, but not only	the lower bound of the true
tive defence during			high-threat (especially EE,	effect
a NATO summit in			LT, LV, PL)	
Wales				
Charlie Hebdo and	1/7/2015	Unlikely	No	-
November terrorist	and			
attacks in Paris	11/13/2015			

Event	Date	Potential effect on EU iden- tity	Differential effect on treatment and control states	Proposed solution
Refugee crisis in Eu- rope: Germany stops following the Dublin EU regulations for asy- lum seekers and calls for a reform of the EU asylum system	Sum 2015	Negative, unfavorable view of so- lution proposed by the EU, Ger- man unilateralism	Yes (a refugee crisis in HU, rise of xenophobia in CZ, HU, PL and SK)	Main estimation period ends before the refugee cri- sis (the May 2015 wave), replication of the results with longer post-treatment period (Table E.6 Column 3)
Iranian nuclear deal	7/14/2015	Unlikely, effect depending on	No	-
signed in Vienna		perception of Iran		
The beginning of Rus-	9/30/2015	Unlikely, could have a rally	No	-
sia's intervention in		round the flag effect, but also		
Syria		damage EU image due to its in- decisiveness		
ParisAgreementsignedasaattempttodealclimatechange	12/12/2015	Positive, showing a favorable im- age of multilateralism	No	-
United Kingdom votes	6/23/2016	Positive: increased awareness of	No	-
to leave the EU		costs of leaving the EU		
Donald Trump elected	11/8/2016	Positive: decreased trust in the	No	-
president of the United		US, increased need for the EU's		
States		self-reliance		