

# Can external threats foster a European Union identity?

## Evidence from Russia's invasion of Ukraine

Do external threats strengthen identity?

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**Abstract:** Can external threats strengthen group identity? A growing body of research in economics emphasises 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-threat to high-threat states in a difference-in-differences design, I find a sizeable 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 proximity to Russia and Russian minority size are driving high-threat status.

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

**Classification:** D7, F5, H7, N44, Z1.

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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 organisation today are much larger. Which forces keep those units together and allow them to cooperate at such a large scale? The German sociologist Georg Simmel (2010) hypothesised 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 voluntarily 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 and the European Union against the Soviet threat (Vaubel, 1994).

One major aim of this study, compared to prior research, is to disentangle the effect of a threat from the effect of conflict (Bauer *et al.*, 2016), serving in the military (Jha and Wilkinson, 2012) or occupation and destruction (Dell and Querubin, 2017). Behavioural economists and psychologists find that threats can contribute to a stronger group identity (e.g. Tajfel *et al.*, 1979; Giles and Evans, 1985). However, for reasons of practicality, experimental evidence largely focuses on threats to status or social cohesion. 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 the results are inconclusive (Wolfe, 1984; McCormick and Wittkopf, 1990; Meernik, 1993).

This paper exploits the Russian invasion of Ukraine in 2014 as an exogenous variation in the military threat for member states of the European Union (EU). I focus on the eastern EU member states because they are more comparable economically and with regard to initial identity, and they 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 (DiD) 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 specifications use a short event window to reduce the impact of other potentially biasing events.

Using responses to three questions about identity from the large-scale Eurobarometer surveys ([European Commission, 2020](#)), I find that the stronger 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 it 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 favour of an information channel: respondents in high-threat states do not become objectively better informed about the EU. To support 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 a defence against the external threat.

In a series of robustness tests, I show that these results are robust for extending the sample to all EU member states, and for varying the definition of threat intensity. Specifically, I add Lithuania or Finland as high-threat states, and I use a continuous measure of threat intensity based on [Google Trends \(2020\)](#) 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 error 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 et al. \(2020\)](#) show how shared experiences can foster a common national identity and reduce the risk of internal conflict, focusing on the effect of sports 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 help to develop 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 the growing economics literature emphasising the importance of culture (e.g. [Grosfeld et al., 2013](#); [Giuliano and Nunn, 2020](#); [Lowe et al., 2017](#); [Desmet and Wacziarg, 2018](#); [Bazzi et al., 2020](#); [Bordalo et al., 2020](#)), and an experimental literature highlighting the role of group identities for decision-making (see review in [Kranton, 2016](#)). There is also growing literature on state capacity and nation-building (e.g. [Laitin, 2007](#); [Cantoni and Yuchtman, 2013](#); [Cantoni et al., 2017](#); [Bazzi et al., 2019](#)), nationalism ([DellaVigna et al., 2014](#); [Alesina et al., 2020](#)), and its consequences ([Ananyev and Poyker, 2019](#)). I also relate to important contributions in political science (e.g. [Weber, 1979](#); [Cederman, 2001](#); [Anderson, 2006](#)) and in economic history. We can think of the external threat as reactivating historical memories of Soviet rule. [Fouka and Voth \(2016\)](#), [Ochsner and Roesel \(2017\)](#) and [Korovkin and Makarin \(2019\)](#) show how, conditional on sub-national variation in historical exposure, current events influence purchases and voting behaviour.

Finally, I contribute to the public and political economics literature about fiscal federalism and the size-of-nations ([Alesina and Spolaore, 1997](#); [Desmet et al., 2011](#); [Dreher et al., 2017](#); [Gehring and Schneider, 2018, 2020](#)). In the European Union specifically, heterogeneous preferences ([Alesina and Wacziarg, 1999](#)) and a weak common EU identity ([Ciaglia et al., 2020](#)) are crucial obstacles to further integration steps ([Dolls et al., 2016](#)).<sup>1</sup> This study documents how exogenous external events that foster the sense of belonging to a group can lead to a meaningfully stronger identity and increase support for joint, centralised 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.

<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](#)).

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 it 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 *et al.* (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 must 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 defence’ (Brewer, 2000, p. 122). Military threats can be regarded as conflicts that have not materialised yet, but they will do so with a certain probability. A sudden increase in this probability requires more mutual defence at the larger group level. One perspective is that this is achieved purely through a rational optimisation calculus, where people support more cooperation as the value of defence 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, and this 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 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’ (Fritzsche *et al.*, 2011, p. 101–102).

Experiments suggest that threats can turn individuals ‘into vigorous protagonists of what their in-group stands for’ (Stollberg *et al.*, 2017, p. 390), and increase ‘the collective response of in-group trust’ (Fritzsche *et al.*, 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 clear even at a biological level. De Dreu *et al.* (2010) show that higher levels of the neuropeptide oxytocin – associated with closer identification with a group – promote in-group 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 can 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 behaviour 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-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 tremendous shock. Russia has a large, experienced army that has intervened in secessionist regions (Chechnya) and acted externally after claims that Russian minorities were in danger (e.g. Georgia). Crimea, however, constitutes the first forceful annexation in Europe

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

since WW2. 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> According to *The Economist*, that is why Crimea caused eastern EU member states to update their priors suddenly and perceive the threat posed by Russia 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. Using the terminology of psychology, 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 *et al.*, 2015, p. 521) and increase the alignment with overarching entities (Gaetner and Dovidio, 2012), fostering the willingness to cooperate. As an illustration of this mechanism, an eastern EU head of state calls upon European Union citizens after Russia’s annexation of Crimea to recognise 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, which are summarised in Figure B.1. The Group-Based Control Theory hypothesises 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-categorisation theory highlights the salience of a group in comparison with the out-group that poses the threat. Relative Accessibility Theory emphasises whether a group is associated with values that are endangered by the threat. Based on those criteria, it seems plausible that the EU, rather than national or lower-level identity, is strengthened. Descriptive evidence in Figure A.4a shows that in Eastern Europe the EU is often associated with values that, based on their experience, would be threatened by a Russian occupation: peace, individual freedom, democracy and human rights.

There is no doubt that 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

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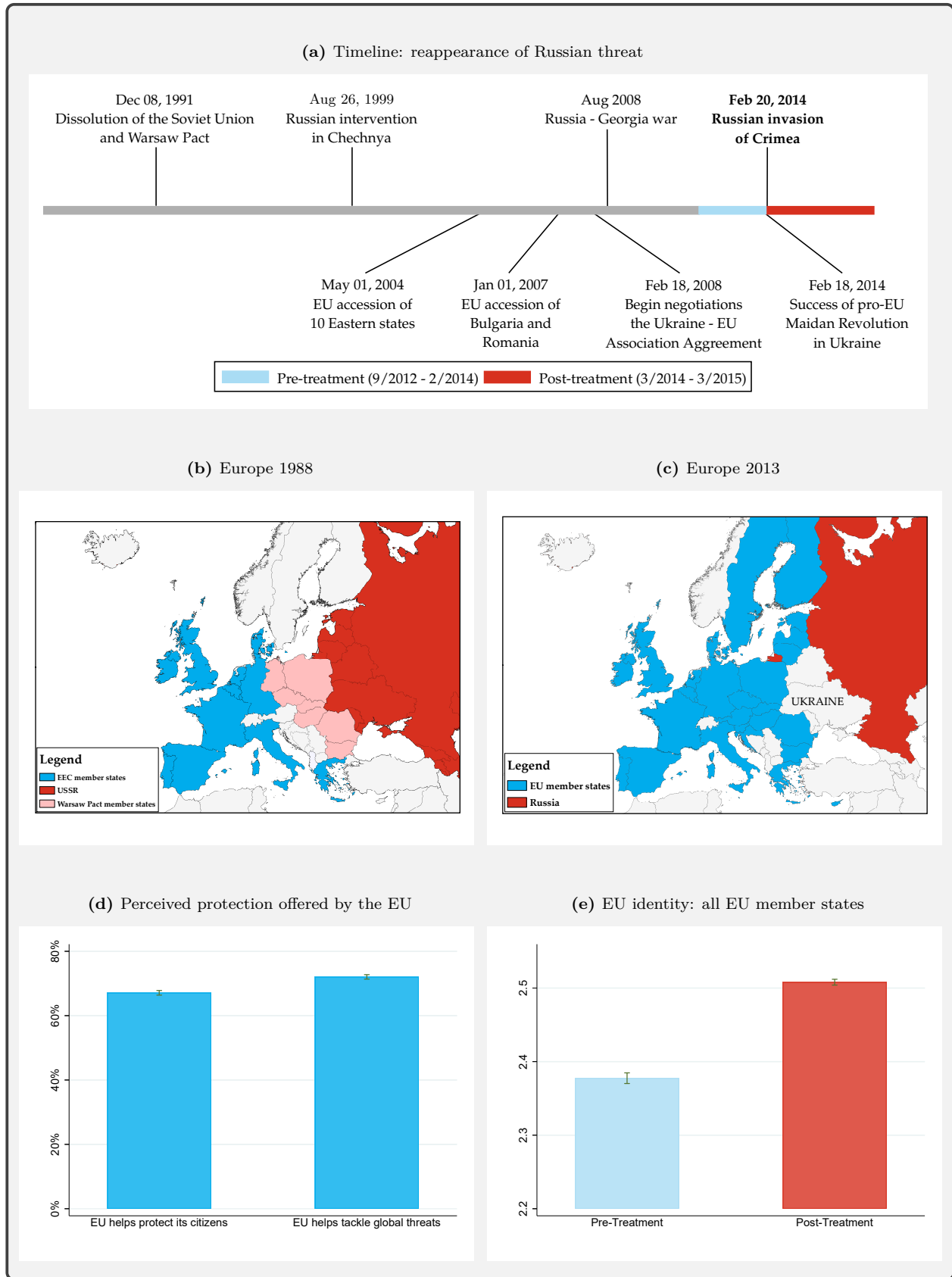
<sup>3</sup> See , and , last accessed 08/03/2020.

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

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 65% 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 defence clause would be fulfilled in case of an actual attack. The EU complements NATO’s military capabilities with its diplomatic competencies and the ability to impose economic sanctions. In that regard, the EU reacted jointly to Crimea by imposing sanctions against Russia – despite being economically costly for some states (see [Table E.4](#)).<sup>5</sup>

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<sup>5</sup> Accordingly, in the Baltic states in particular agreement with whether the EU offers ‘adequate protection of external borders’ increased by nearly 20% between 2016 and 2018.



**Figure 1:** *Expansion of the EU.*

Notes: The 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, the Czech Republic, Hungary, Poland, Romania and Slovakia in the pre-treatment period. **Figure 1e** is based on all 28 EU countries. The latter two graphs also display 95% confidence intervals around the sample means. Section 4.1 provides details.

## 4 Data and identification

### 4.1 Identity measurement

I measure the strength of EU identity using direct questions from Eurobarometer. Their regular surveys are conducted twice a year – in May and November – in all member states, and they poll 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 behaviour 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 behaviour (Dehdari and Gehring, 2021) and internal conflict (Depetris-Chauvin *et al.*, 2020).

My primary measure *EU identity* asks how attached the respondent feels to the EU on a 4-point Likert scale. It is the most common survey-based measure of identity. Most authors interpret this attachment question as measuring ‘belonging’ Pollini (2005); Yuval-Davis (2006), or they just regard it as a synonym of collective identity Weeks (1990); Croucher (2004); Weedon (2004). 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 *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 and the notion of belonging to a larger joint European *demos*. The last question should capture the emotional component of identity well. However, it suggests to respondents that there must be a conflict or substitution of national identity for 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 respondents are pushed to do so, we see some substitution away from national to EU identification.

Theories from social psychology 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 came from a rational expectation alone, I would not expect to see higher in-group trust. Higher trust is then seen as one channel 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 defence 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.4](#) provide all details on the questions. [Table A.5](#) and [Table A.6](#) show 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 primary measure, *EU identity*, for the EU as a whole during the entire pre-treatment period compared to the post-treatment period. We can see a clear positive correlation: identification with the EU is on average considerably higher after the Crimea incident, which 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 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 categorise as high threat and which as low threat. Third, whether and how to restrict the event window. I 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 members of the former Soviet Union or the Warsaw pact. I exclude Slovenia and Croatia, which were part of Yugoslavia during the Cold War. To test robustness, I include all EU states in an extended sample. The criteria are:

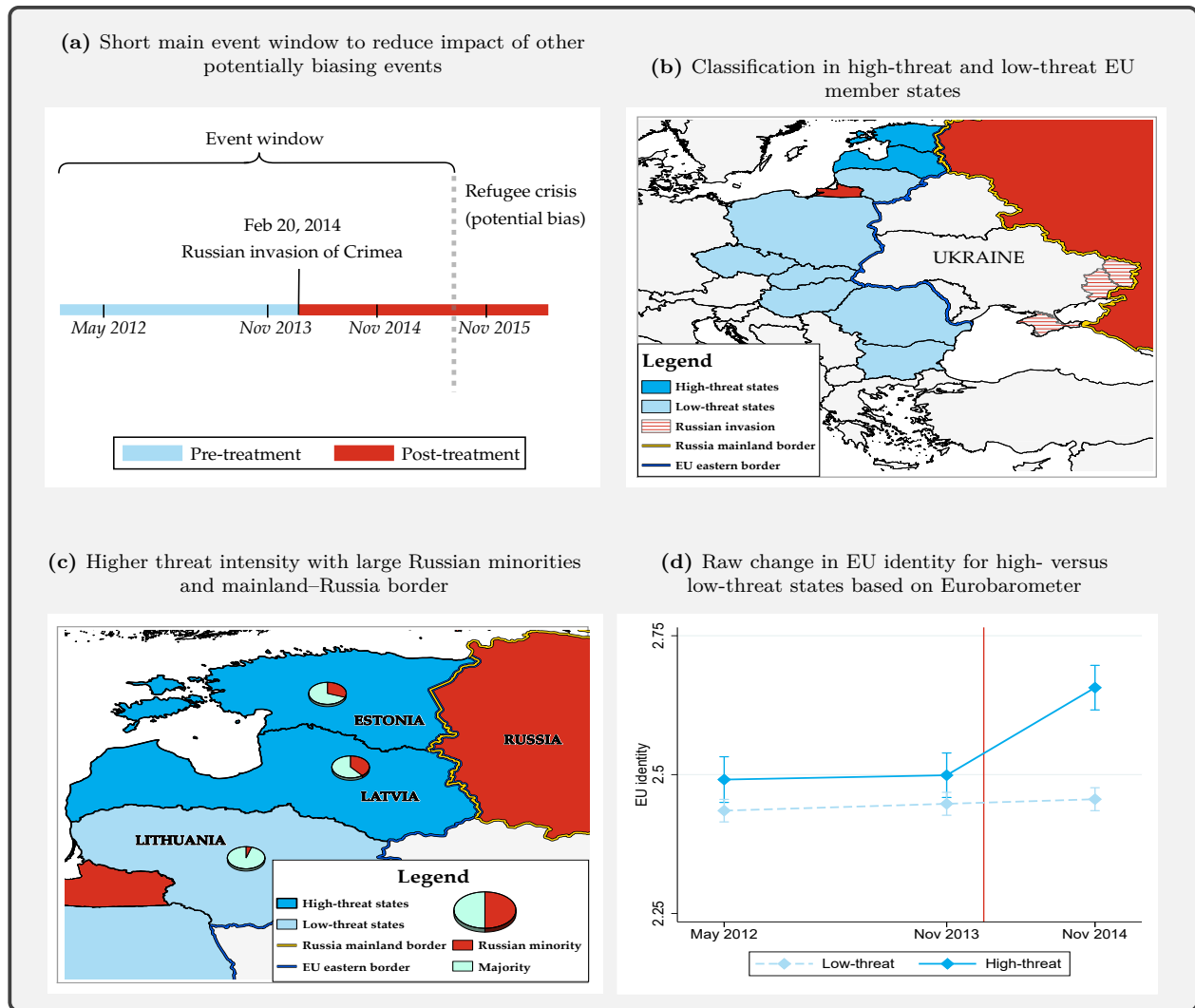
- Comparable levels of initial EU identity. Most western states became EU members much earlier, which plausibly leads to initial differences in levels. [Kahn-Lang and Lang \(2020\)](#) emphasise that DiD results are more robust when initial levels are similar.

- Comparable exposure to other shocks. Eastern states are more similar economically and politically. In tests of robustness, I also control for macro-level shocks, but their importance is much lower in 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. Membership in the former Soviet Union sets Lithuania apart, for instance, as more likely to consider the threat serious compared to an established western state like Finland.

Second, I use two criteria to differentiate 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. There are two objective arguments for this distinction. First, the two high-threat states have a land border with mainland Russia ([Figure 2c](#)), which clearly increases the perceived risk of an invasion. Second, they contain by far the largest ethnic Russian minority groups ([Figure 2c](#)), and that played an important role in justifying the Russian invasions of Ukraine and 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 land border for military-strategic considerations. Experts speculating about a Russian attack note that ‘a large-scale short-notice Russian invasion could reach the capitals [of Estonia and Latvia] within a few days’ ([Larrabee et al., 2017](#), p. 8). A ‘greater difficulty’ is assigned to reaching Lithuania’s capital. Most importantly, the size of the Lithuanian Russian minority, 4.8%, is considerably smaller ([Figure 2c](#)). I further validate this choice in [section 4.3](#).

Third, the DiD design also implicitly assumes common shocks. That is, other events overlapping with but unrelated to the Russian invasion of Ukraine should not decisively affect identity differently in low- versus high-threat states. The most obvious potentially biasing event is the refugee crisis starting in the fall of 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 that period could bias my estimates upwards. To minimise these risks,



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

Notes: **Figure 2a** reports a time-line for our analysis. **Figure 2b** shows the treatment and control groups. Maps are based on Eurostat (2016). Minority shares in **Figure 2c** are identified based on language. **Figure 2d** shows a simple average difference in our main variable; figures show 95% confidence intervals of averages.

I choose an event window for my main specifications 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.

### 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* (Jones, 2017). As a first check, I examine changes in the number of articles that mention Russia together with a word signalling a threat. I am able to implement this article-level analysis for five eastern states that have an English-language news agency. The results in Figure 3a show a common pre-treatment trend in all five states, followed by a strong increase after Crimea. This increase is by far higher for Estonia and Latvia, followed by the other three states.

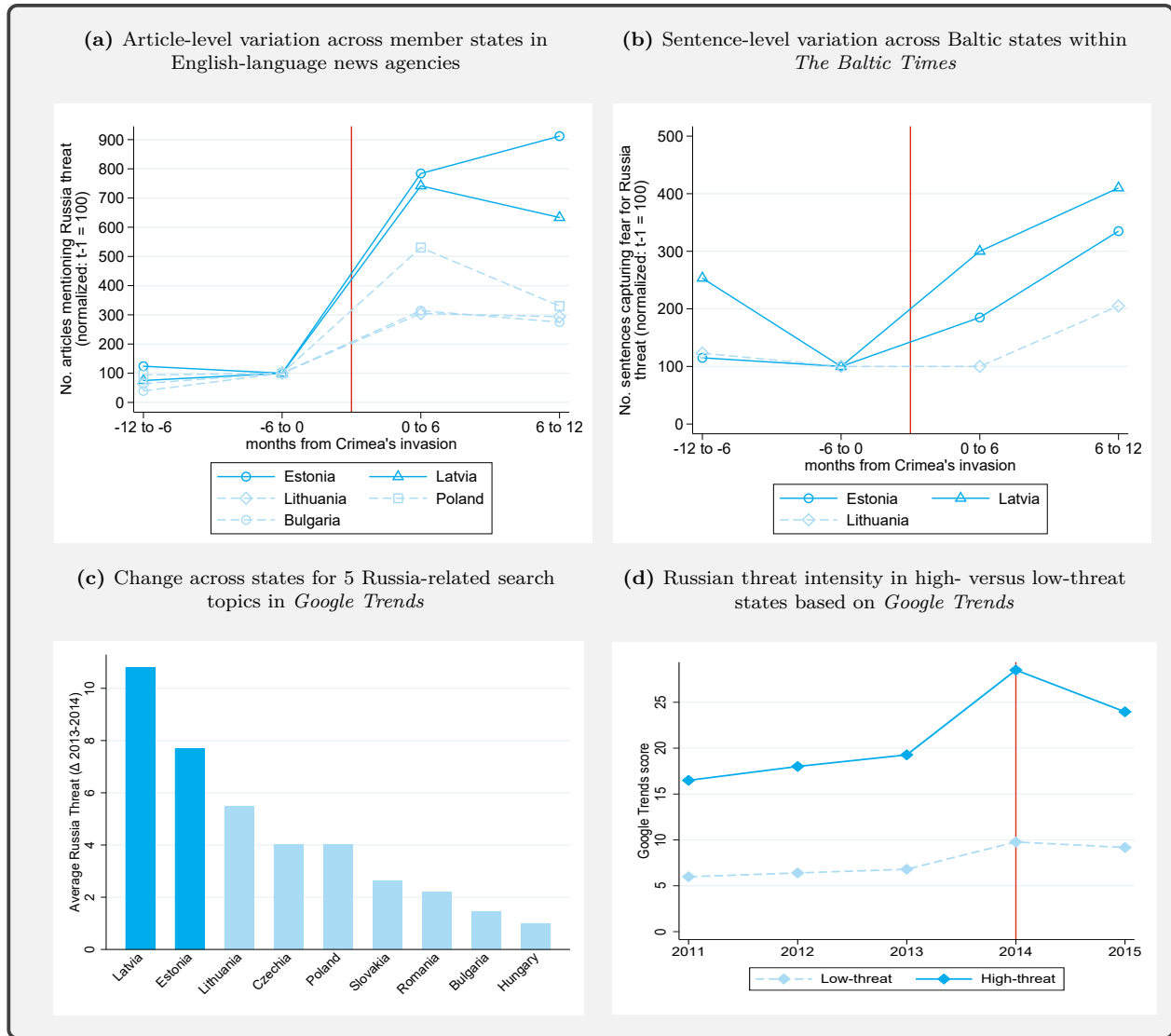
As a second check, I examine in further detail whether Estonia and Latvia, in line with my arguments, really perceive the threat more strongly than Lithuania. To do this, I examine articles in *The Baltic Times*, an English-language newspaper covering all three Baltic states. I first download the full text of all the articles that mention ‘Russia\*’, ‘Ukraine’ or ‘Crimea’. Then I process them using the Python NLP package Spacy. Next, I select specific sentences containing one of the three states AND Russia AND a word signalling fear from the *NRC Emoticon Intensity Lexicon*. The results in Figure 3b further demonstrate 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 (Google Trends, 2020) to examine changes related to five *Google Topics* that are likely to capture searches associated with the Russian threat. Figure C.3 shows that on average there was indeed a large spike in searches for these topics after the Crimea invasion. Figure 3d shows that this increase is much larger in the two high-threat states and that the change in Lithuania is 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 test the robustness of my results using other plausible specifications.

#### 4.4 Identification and pre-treatment trends

To estimate a causal effect, I must 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 shows that, prior to 2014, trends in *EU identity* were indistinguishable.<sup>6</sup> Moreover,

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



**Figure 3:** Differences in intensity of perceived Russian threat.

Notes: Measures in [Figure 3a](#) and [Figure 3b](#) are normalised to period  $t - 1$ . [Figure 3a](#) displays the number of English language articles by national sources concerning the Russia threat, between 19<sup>th</sup> February 2013 and 20<sup>th</sup> February 2015. I 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<sup>th</sup> February 2013 and 20<sup>th</sup> February 2015. I use the following search commands in *Factiva*: ‘Russi\* or Ukrain\* or Crime\*’. Then, I use NLP to select sentences including: a) state/nationality per each state, b) the words *Russia/Russian* and c) words capturing fear. The sets are mutually exclusive. I used the *NRC Emoticon Intensity Lexicon* dictionary as a list of fear-related words; I 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 they capture all searches thematically related to a topic in any language. This allows me to distinguish searches by member state.

the initial levels are also similar, making the DiD assumptions more plausible because I do not need to assume that the factors causing level differences are uncorrelated with future trends (see [Kahn-Lang and Lang, 2020](#)).

Finally, changes in the composition of the population in high- versus low-threat states could affect the estimate. [Table A.7](#) shows the balance in levels and trends over the event period. The only relevant difference is in the composition of age, which turns out to be negligible for the estimates. To account for compositional changes, all specifications control for pre-determined individual-level socio-demographic factors like age and 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 analyse this difference-in-differences systematically using the following regression:

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

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 standardised.  $X_{i,t}$  is a set of individual characteristics including gender, age, education level, and labour market status. State ( $\delta_s$ ) and year ( $\lambda_t$ ) fixed effects (FE) capture state- and year-specific factors, including the main terms forming the interaction.  $X'_{s,t}$  contain a set of macro-level controls that are not part of the main specification, but included in some robustness tests and to assess the long-term effects ([World Bank, 2019](#); [Cruz et al., 2021](#)). Standard errors  $\epsilon_{i,s,t}$  are clustered at the regional level.

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

## 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 macroeconomic and political control variables.

All columns yield comparable point estimates. The pre/post comparison for the high-threat states in column 1 shows a similar increase in EU identity: 18.5%. My preferred specifications in column 3 yield 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 0.01, it is also meaningfully large. It corresponds, for instance, to more than  $\frac{3}{4}$ s of the pre-treatment differences in identity between member states of the EU (see [Table D.1](#)).

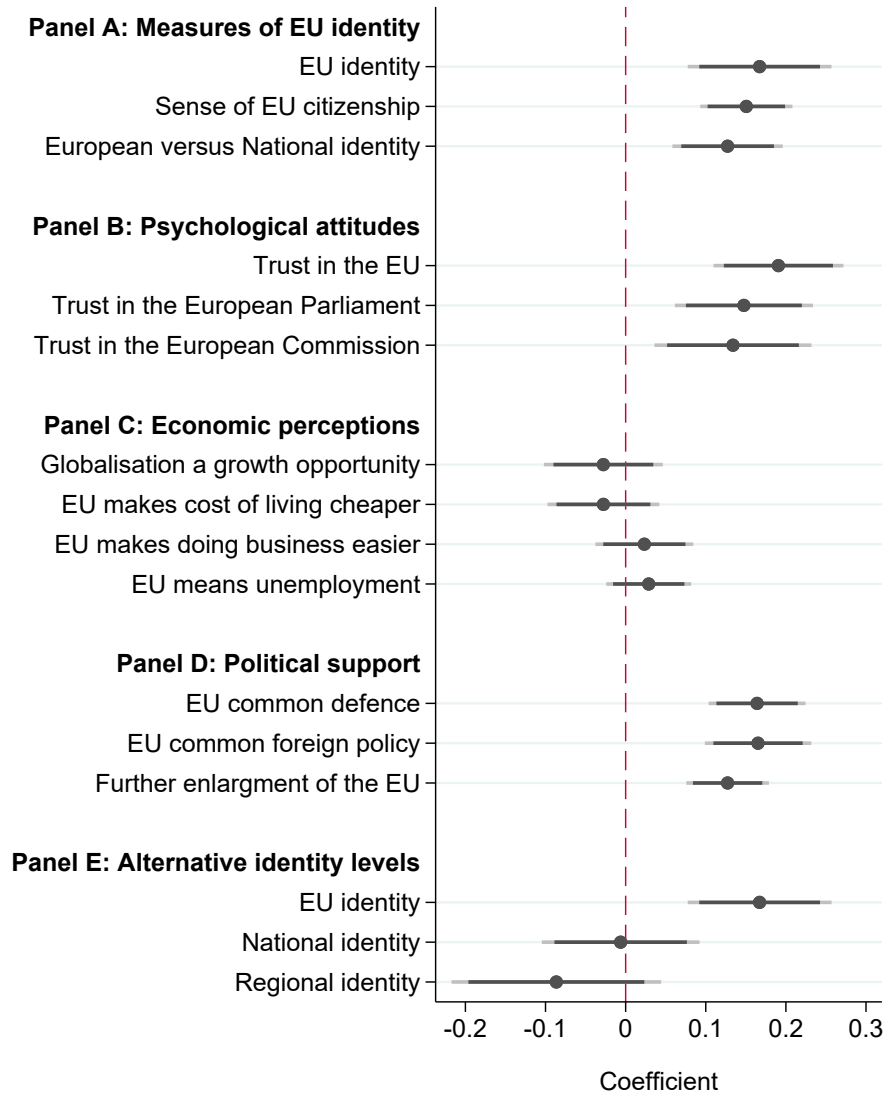
**Table 1:** *Full DiD results – EU identity (2012–2014 event window).*

|                              | (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             |
| N                            | 4695             | 24884            | 24884            | 24884            |

Notes: Regression coefficients with standard errors in parentheses and p-values in square brackets (clustered at the regional level). All outcomes are standardised. 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 standardised with mean 0 and variance 1. All regressions control for individual characteristics including gender, age, education level, labour market status, urban versus rural area, marital status and presence of children. Member state characteristics include real GDP, inflation rate, youth unemployment rate, and a dummy for legislative elections held.

Column 4 shows 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 confirms 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.3](#)

compares the pre- and post-treatment answers. They show 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.4 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.



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

Notes: Figure displays DiD coefficients measuring the impact of the increased Russian threat, with corresponding 90 and 95% confidence intervals (95 in lighter grey). All outcomes are standardised. All regressions control for individual characteristics including gender, age, education level, labour market status, urban versus rural area, marital status and presence of children, time fixed effects and member state fixed effects. Standard errors are clustered at the regional level. The number of pre-treatment measurements is between two and five, the number of post-treatment observations is 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 F.2 shows detailed results.

## 5.2 Mechanisms and consequences

Figure 4, panels B to D, provide results that help to understand the mechanisms behind the increase in identity, potential confounders, and the link to a willingness to cooperate. Panel B, *Psychological attitudes*, shows that the stronger EU identity indeed coincides with increased trust in the EU in general, but also trust in EU institutions like the European Parliament and the European Commission.

This highlights two aspects. First, that the increase in stated identity is not driven by instrumental motivations alone. That would not explain the obvious increase in trust. Rather, these psychological changes highlight the automatic or subconscious effect of the threat emphasized by social psychologists. Second, the increase is in line with the hypothesis that one evolutionary purpose of a stronger group identity under threat is to strengthen in-group trust, which should increase the willingness to cooperate at the most aggregate feasible group level.

Panel C, *Economic perceptions*, captures whether other changes that affect low- and high-threat states differently might drive the results, 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 results for *Political support* 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 defence policy, related directly 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 and 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 of the EU's federal architecture. The theories from social psychology predicted that, in reaction to a threat, identification would increase most with the level that was perceived as most helpful against the threat and most salient in the media. In fact, there is no effect at all for national (member state) identity or for regional identity. This is in line with qualitative evidence

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

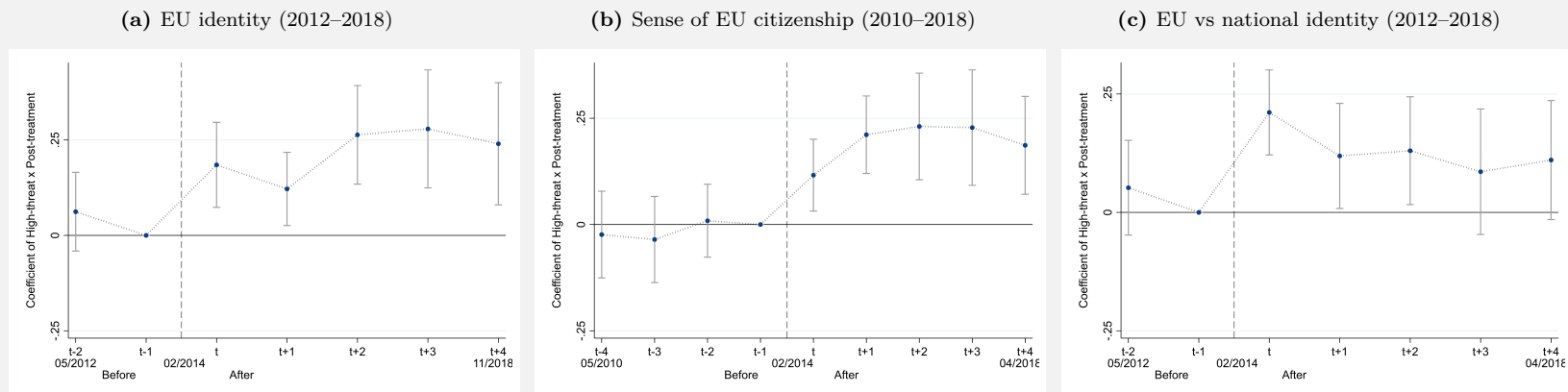
describing the post-Crimea public discourse in high-threat states with an ‘emphasis on a “we” which did not mean only “we Estonians” or “we Latvians”, but a broader community: either “we Europeans” or “we westerners”’ (Jakniunaite, 2016, p. 13–14). To the best of my knowledge, this is new evidence for the real-world relevance of those theoretical considerations.

#### 5.4 Persistence and longer pre-treatment trends

Russia’s actions in Ukraine might have permanently altered the probabilities assigned to a conflict with Russia. However, it is also possible that when the events become less salient, the perceived threat and identity decrease again. Figure 5 shows the specifications 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, and it includes a set of lagged macro-level control variables to account for potentially diverging trends between treated and control groups.

The first insight is that there are no systematic pre-treatment trends for any measure. The regression coefficients for all lead terms are insignificant, close to zero, and there is no systematic trend towards a stronger identity in any of the three figures. This is particularly interesting and reassuring for *Sense of EU citizenship*, where I can expand the pre-treatment window to begin as early as 2010.

The figures show that the effect is quite stable. It 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 effect persists because the threat remains high or if it signals a permanent shift in identity. It seems plausible that parts of it would remain as long as memories of it persist, even if the immediate threat disappears.



**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 the dummy variable for time with *High-threat*, using the main specifications from Figure 4. Year 2013 (wave 1) is taken as the reference period; standard errors are clustered at the regional level. I use the same controls employed in the main specifications of our analysis. I also added a set of macro controls: real GDP, inflation rate, youth unemployment and a variable that indicates whether legislative elections have been held. Figure 5b and Figure 5c display 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.

## 6 Heterogeneous effects

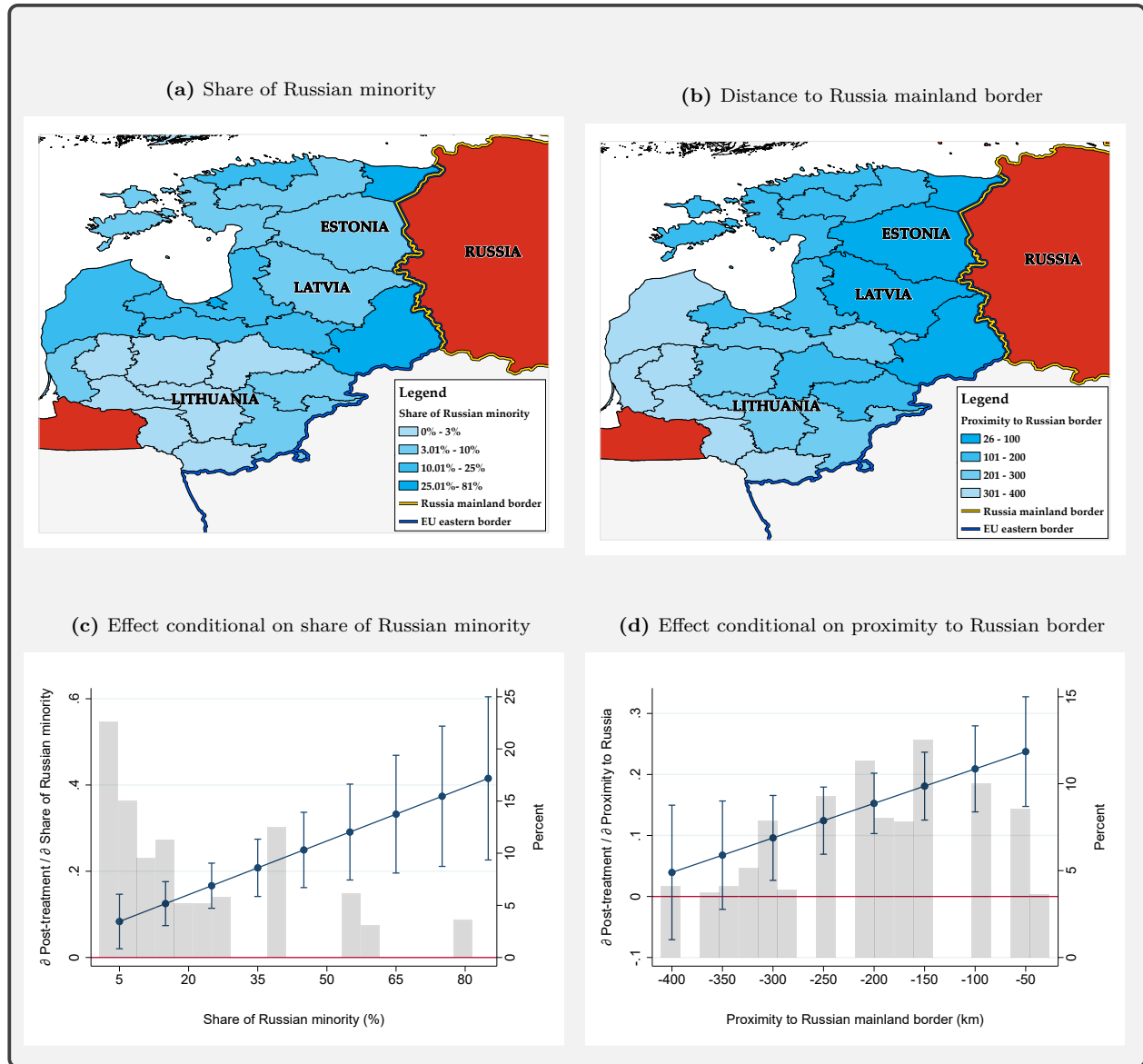
### 6.1 Differences in threat intensity in the Baltic states

The fundamental distinction between high- and low-threat states was based on distance from Russia and the share of ethnic Russians. This argument was supported by qualitative evidence and the media and online search results, and I can further verify its plausibility by using sub-national variation between regions in 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 visualise the units in this analysis, and they show the relative proximity and the share of the Russian minority by region. The data stem from Tiit (2013); Central Statistics Bureau of Latvia (2012) and Statistics Lithuania (2013). I then estimate:

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

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.

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 increases as the distance from Russia declines and the share of ethnic Russians rises. Table F.1 provides the full regression results, also showing that the interaction effect is statistically significant.



**Figure 6:** *Heterogeneous effects – share of Russian minority share and proximity to border with mainland Russia.*

Notes: **Figure 6a** and **Figure 6b** visualise regional differences in threat intensity in 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 standardised. The 95%-confidence intervals are based on robust standard errors, clustered at the region level. I use same controls employed in the main specifications of our analysis. The underlying bar charts in grey are histograms of the two intensity indicators across regions. Full results are in **Table F.1**.

## 6.2 Age, (Soviet) education and export dependence on Russia

This section examines heterogeneous effects based on individual-level or area-specific differences. First, I divide the respondents into three age groups. The idea is that older people had more (negative) exposure to Russia in the past. The first age group comprises 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 is everyone above that age range.

The regressions suggest that experiences with Russia in the past do 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 and the oldest cohort experiences the largest effect. This is in line with other studies that show that exposure to certain shocks earlier in life can affect the reaction to current shocks that trigger such memories.

Second, I investigate the extent to which the effect differs depending on the type of education individuals received. The three groups are based on primary education only, with secondary education and 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 what share of their education most likely occurred during Soviet times. Initially, it seemed that there is support for that hypothesis, based on a positive interaction. However, when including 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 matters, but it suggests that it is personal experience that seems decisive, not indoctrination during school.

Fourth, I further examine whether economic dependence on Russia is a more rational basis for moderating that effect. Reasons could be that people in those regions have more positive experiences or associations with Russia. 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 the share of exports that goes to non-EU countries ([Carré, 2008](#)). 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. This is another indication that the identity effect is better considered as an unconscious, psychological response than a rational choice.

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

|                                                           | (1)                         | (2)                         | (3)                         | (4)                         | (5)                          |
|-----------------------------------------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|------------------------------|
|                                                           | Attach EU                   | Attach EU                   | Attach EU                   | Attach EU                   | 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<br>(0.037)<br>[0.101] | 0.142<br>(0.189)<br>[0.470] | 0.014<br>(0.045)<br>[0.765] | 0.046<br>(0.053)<br>[0.407] | -0.059<br>(0.337)<br>[0.865] |
| Post-treatment<br>× Age 40-64                             | 0.127<br>(0.076)<br>[0.123] |                             |                             | 0.094<br>(0.152)<br>[0.549] |                              |
| Post-treatment<br>× Age 65-100                            | 0.367<br>(0.106)<br>[0.006] |                             |                             | 0.334<br>(0.157)<br>[0.059] |                              |
| Post-treatment<br>× Secondary<br>education                |                             | 0.066<br>(0.166)<br>[0.701] |                             |                             |                              |
| Post-treatment<br>× Tertiary<br>education                 |                             | 0.044<br>(0.173)<br>[0.803] |                             |                             |                              |
| Post-treatment<br>× Share<br>education under Soviet Union |                             |                             | 0.002<br>(0.001)<br>[0.027] | 0.001<br>(0.002)<br>[0.786] |                              |
| Post-treatment<br>× Export to<br>non-EU                   |                             |                             |                             |                             | -0.017<br>(0.015)<br>[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                         |

Notes: Regression coefficients with standard errors in parentheses and p-values in square brackets (clustered at the regional level). All models include data on Estonia and Latvia only; outcomes are standardised 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: the reference level corresponds to primary education or no education pursued at all, coefficients for secondary and tertiary school attendance are shown. Column 3 shows the interaction with the share of education years attained in the Soviet Union. Column 4 shows the combination of interactions effects from models in column 1 and 3. Column 5 displays results of interactions with the extra-EU export index, controlling for export to intra-EU states. I 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 F.3](#) in the appendix, displays the same models also showing the coefficients of main effects.

## 7 Robustness

### 7.1 Alternative samples and definitions of threat intensity

For the first test of robustness, 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 specifications 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).

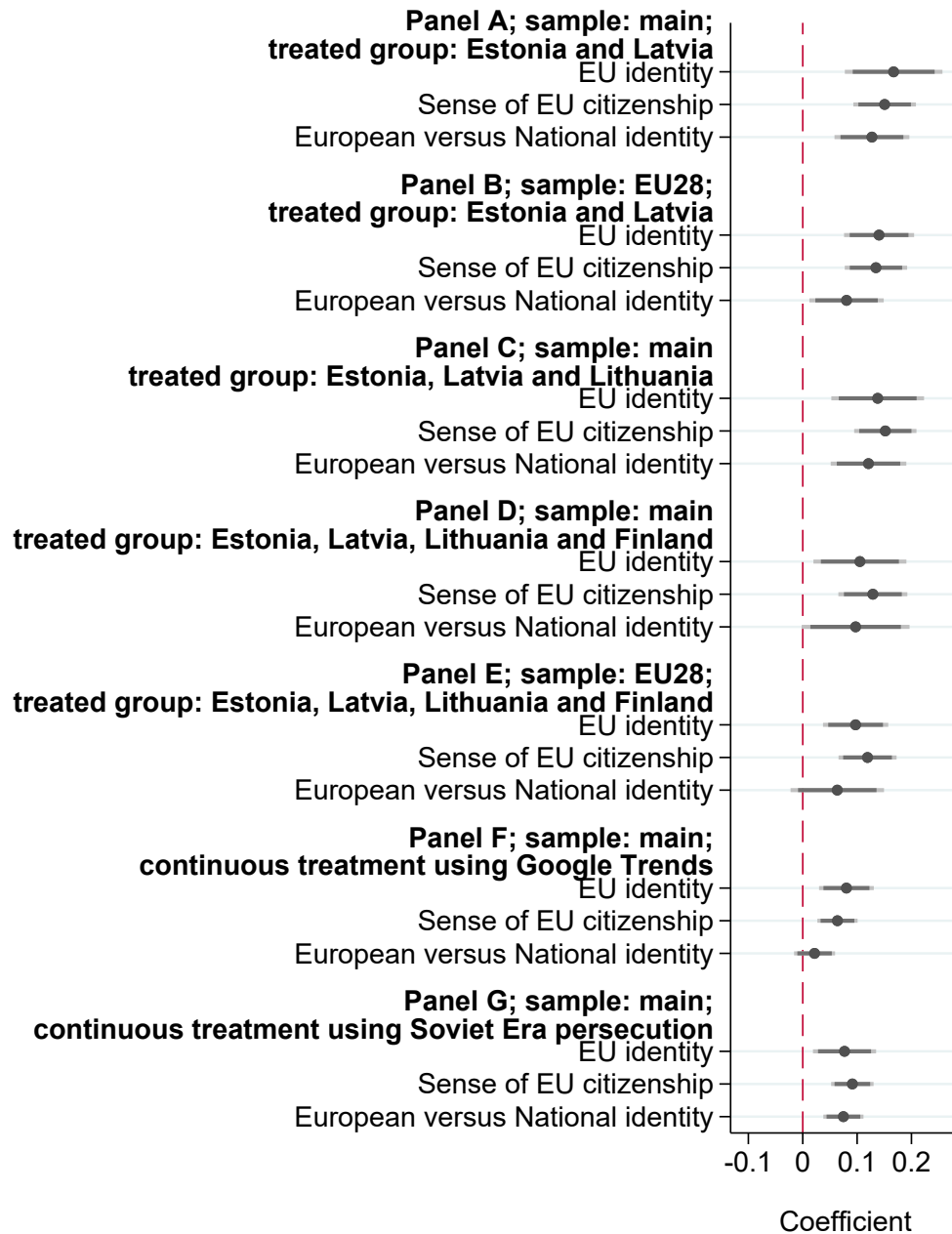
**Figure 7** shows coefficient plots for all three EU identity measures. The results in panels A to E show that the results are robust for all these modifications. In panel F, I replaced the binary distinction of high- and low-threat states altogether by using the continuous measure of treatment intensity 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* are clearly statistically significant.

Finally, as an alternative, pre-determined measure of threat intensity, I use the Life in Transition Survey (LITS, [European Bank for Reconstruction and Development, 2016](#)) to compute the extent to which people themselves or their extended family directly experienced persecution while their state was directly or indirectly controlled by the Soviet Union. I then aggregate the responses at the level of the member states. The idea is that respondents in states that experienced more persecution also perceive the threat as more intense, providing a continuous measure of treatment intensity. The results in panel G show that this works well, with positive and significant coefficients for all three identity measures.

### 7.2 (Non-)effect of Russian minority in Latvia and Estonia

In the survey data for Latvia and Estonia, it was possible to distinguish majority respondents from the Russian minority. Theoretically, one should expect those minority members to react differently than the majority population if ethnic Russians do not perceive Russia as a threat. I begin by examining responses from the Latvian Political Survey in December 2014 ([Nakai, 2014](#)). It asked majority and minority members about their perception of the incidents in Ukraine. Most minority members regarded the West as responsible

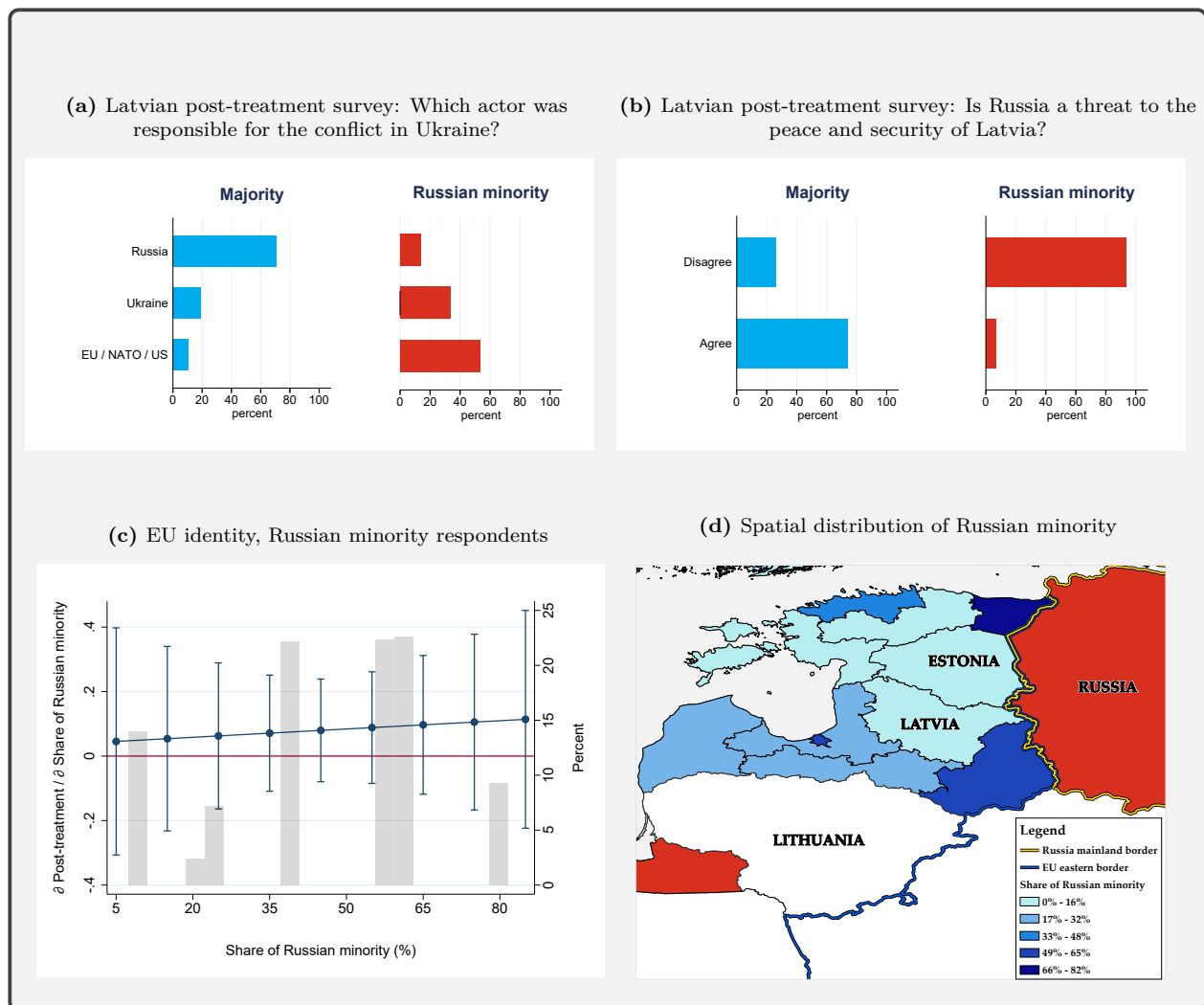
for what happened in Crimea, not Russia's attempt to expand its power. So, as opposed to the majority of Latvians, less than 10% of ethnic Russians perceive Russia as a threat.



**Figure 7:** *Alternative definitions of treatment and sample composition.*

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 grey), based on standard errors clustered at the regional level. All outcomes are standardised according to the sample used in each model. I use same controls employed in the main specifications of our analysis. 'Main sample' includes Estonia, Latvia, Lithuania, Bulgaria, the Czech Republic, Hungary, Poland, Romania and Slovakia. EU28 includes all EU states. Panels F and G use a continuous measure of threat intensity at the member state level.

Figure 8 shows two main results, using the same regression as in subsection 6.1, but with the sample of minority respondents. 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. It further confirms 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. There is also no change in national or regional identity, 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 the regional share of Russian minorities. The underlying bar charts in grey are histograms of the regional share of Russian minorities. Outcomes are standardised, and the 95%-confidence intervals are based on robust standard errors. I use the same controls employed in the main specifications 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 concentration of the Russian minority at the regional level relative to which marginal effect is computed. Figure 8d shows the distribution of Russian minorities in Estonia and Latvia.

### 7.3 Information versus trust

As outlined before, the change in identity, trust and willingness to cooperate could be related to a psychological, more unconscious, response or to a mere rational reaction. One way that a purely rational, self-interested cognitive response could trigger higher trust in the EU would be based on the acquisition of information. We know from research on financial market participants, for instance, that more information reduces uncertainty. Thus, it could also be related to higher trust (see e.g. [Fuchs and Gehring, 2017](#)). It is possible that the Russian threat leads citizens to gain more information about the EU – and those in high-threat states 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 show that they objectively did not learn more about either the EU Commission or the EU Parliament, and they did not gain greater general knowledge about the EU. This is based on the quiz-like questions in the Eurobarometer. However, when asked about their subjective understanding of how the EU works, there is a small but significant 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 enough to allow more cooperation, even without actual (at least measurable) improvements.<sup>8</sup>

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<sup>8</sup> Theoretically there could still be differences in specific knowledge about the EU's crisis response between low- and high-threat states that cannot be measured based on the available data. However, if that were a major mechanism, I would expect to see some differences in the more general knowledge about the EU measured here.

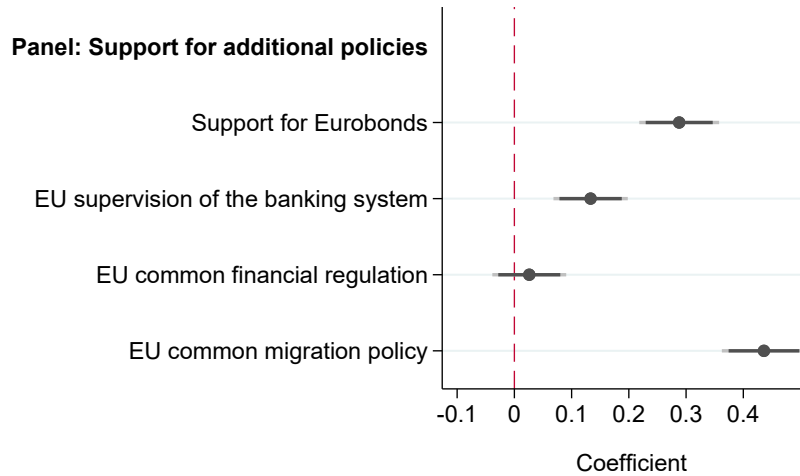
**Table 3:** *Higher understanding and knowledge of the EU in high-threat countries.*

|                      | (1)<br>Knowledge about the<br>EU Commission<br>Coef./SE/p-value | (2)<br>Knowledge about the<br>EU Parliament<br>Coef./SE/p-value | (3)<br>General knowledge about<br>EU (3 items questionnaire)<br>Coef./SE/p-value | (4)<br>Self-assessed understanding<br>about the EU<br>Coef./SE/p-value |
|----------------------|-----------------------------------------------------------------|-----------------------------------------------------------------|----------------------------------------------------------------------------------|------------------------------------------------------------------------|
| High-threat $\times$ | 0.044                                                           | 0.046                                                           | -0.020                                                                           | 0.058                                                                  |
| Post-treatment       | (0.032)<br>[0.185]                                              | (0.039)<br>[0.240]                                              | (0.040)<br>[0.613]                                                               | (0.033)<br>[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                                                                   |
| N                    | 67533                                                           | 67931                                                           | 68405                                                                            | 65256                                                                  |

Notes: Regression coefficients with standard errors in parentheses and p-values in square brackets (clustered at the regional level). All outcomes are standardised. I implement the model corresponding to our main specifications but using as the 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 the share of correct answers given by respondents to three quiz-like questions about the EU: Number of member states, election to EU Parliament, and whether Switzerland is part of the EU.

## 7.4 Additional common EU 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, support for Eurobonds (the issuance of common EU debt), common banking supervision and common migration policies all increase significantly, while a common financial regulation is positive but insignificant. This is an important additional result, as it indicates 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.



**Figure 9:** *Results with additional common policy support measures (only selected surveys, only one pre-treatment observation, questions that change slightly over time).*

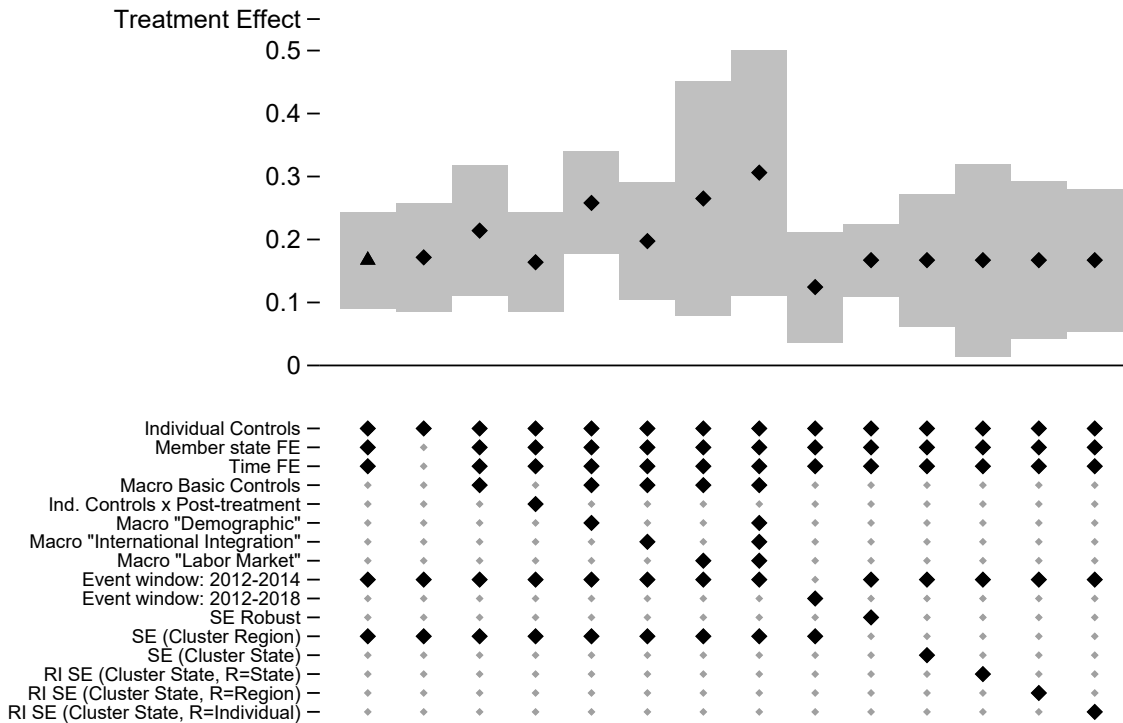
Notes: Figure displays the DiD coefficient, measuring the impact of the increased Russian threat, and corresponding 90 and 95% confidence intervals (95 in lighter grey). All outcomes are standardised. The regressions included time-fixed effects and member state-fixed effects. They use observations between November 2013 and November 2014. The number of observations for support for common migration policy is 16,021. For the other policy support measures, it is between 19,500 and 23,000. The question about a common EU migration policy changes slightly over time.

## 7.5 Other robustness

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

I can also use people from the high-threat states Estonia and Latvia living abroad in low-threat EU states as an alternative counterfactual. This approach has the advantage that those emigrants share the same initial background and culture, theoretically differing only in being more or less exposed to the threat because of their current location. Figure D.2 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 because of the low number of such emigrants, the estimates are very noisy.

Returning to the main specifications, I estimate standard errors in different ways. Clustering at the state level works, but the number of clusters is small. Wild cluster bootstrap approaches severely under-reject



**Figure 10:** *Event window (2012–2018) and robustness tests.*

Notes: I use the main specifications from [Figure 4](#); I also added a set of macro controls: Real GDP, inflation rate, youth unemployment and a variable indicating whether legislative elections have been held. Year 2013 (wave 2) is taken as the reference period; standard errors are clustered at the regional level. RI refers to randomisation inference, implemented using the Stata package *ritest* ([Hess, 2019](#)). The “R=” refers to the level at which the treatment was randomised). Full regression results are in [Appendix F](#).

when the number of treated clusters is smaller than five, but randomisation inference seems to be a feasible alternative ([Conley and Taber, 2011](#); [MacKinnon and Webb, 2016](#)). I use three versions, randomising at the state, regional and individual levels. The results are robust in all those alternatives. Finally, the main result holds with the extended event window. Further tests in [Table D.3](#) show that the results are also not driven by specific states in the control group, leaving out one state at a time. [Appendix E](#) assesses potential confounding events.

## 8 Conclusion

This paper contributes to the emerging economic literature on the origins of group identities, as well as to broader social science research. Adding to the scarce evidence from observational data to assess changes

in identity (Depetris-Chauvin *et al.*, 2020; Fouka, 2020; Dehdari and Gehring, 2021), the results foster our understanding of how important events can influence identity and associated preferences in the real world. The results also provide empirical validation of the importance of the threat mechanism, which was emphasised theoretically and tested experimentally in social psychology and behavioural economics. They show that not only social threats but also real military threats – hard to emulate in an experiment – have a sizeable and consistent effect when a large sample is used. 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 major result is that the external military threat posed by Russia causes a significant increase in common EU 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 and occupation. The effect is also of a meaningful size. To put this 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 the event window is expanded.

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

With regard to the EU specifically, the results suggest that a threat from an out-group can have a unifying effect on in-group members. 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 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.

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