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How are beliefs toward migration affected by terrorism? Evidence from the 2010 Stockholm bombing

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ABSTRACT

This study investigates the potential influence of the Stockholm terrorist event on societal attitudes toward migration, using a difference-in-differences approach with data from the European Social Survey. The analysis, built on robust regression methods, suggests a shift toward more positive attitudes toward migration following the attack. Further, the same methodology is used for the Charlie Hebdo terrorist attack and the results obtained are quite similar. This shift in attitudes toward migrants, although not expected, shows how context factors such as the integration of migrants and how institutions deal with these tragic events can matter in shaping how individuals respond in the aftermath of terrorism. In homogeneous societies where every individual is well integrated the terrorist attack can foster a raise round the flag effect, which, in this case, also encompasses migrants. Furthermore, policymakers can understand and study the Swedish response to the event more in-depth. Hence, creating a safer environment for everyone in the aftermath of a terrorist attack.

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Introduction

Over the past twenty years, there has been an unprecedented evolution in the nature of terrorist attacks, with marked changes in their severity, frequency, and location (see Gaibulloev and Sandler 2019). This surge in terrorist activities, coupled with the ascent of anti-immigration and extreme right-wing political parties in Europe, has fostered an increasingly hostile environment for minorities, bringing about significant societal challenges. Beyond merely escalating security issues, in some cases, these tragic events have profoundly shaped public opinion and policymaking, particularly regarding attitudes toward migration (Nussio, Bove and Steele 2019; Echebarria-Echabe and Fernandez-Guede 2006; Ferrín, Mancosu and Cappiali 2020; Legewie 2013; Peri, Rees and Smith 2023; Castanho Silva 2018).

Since 1995, terrorism has largely been attributed to national separatist movements or religious-Islamic terrorist groups (Helbling and Meierrieks 2022). In their aftermath, societies often undergo significant transformations, reflecting changes in attitudes toward sensitive topics. The nature of these terrorist acts, often amplified by media coverage and government response, increases insecurity. These sentiments, individually and collectively, significantly influence public opinion and, subsequently, shape views on pressing issues such as migration and security. Nevertheless, interestingly, terrorist attacks can also foster a stronger sense of unity and increase trust between individuals and institutions (Perrin and Smolek 2009, Woods 2011), potentially improving perceptions of migrants.

Sweden, renowned for its liberal migration policies, provides an ideal case for exploring these dynamics. This study focuses on the 2010 Stockholm bombing, the country's first suicide bombing, carried out by a Swedish-Iraqi man (New York Times, December 12, 2010)[1]. Despite causing no fatalities, the incident had a substantial impact on the population. The attacker, a Swedish-born individual of immigrant descent, cited Sweden's military involvement in Afghanistan, discrimination against Muslims in Sweden and Europe, and satirical depictions of Islam by Swedish journals as motivations (The Guardian, December 12, 2010)[2]. This incident rekindled debates on migration policy, integration, and social cohesion in Sweden and throughout Europe.

[1] https://www.nytimes.com/2010/12/12/world/europe/12sweden.html?_r=1&hp

[2] https://www.theguardian.com/world/2010/dec/12/stockholm-bombing-policing-lone-jihadists

In this study, I employ a Difference-in-Differences (DiD) estimation method using the European Social Survey (ESS) dataset, specifically focusing on questions related to migration and migrants. The coefficient of interest is the interaction between whether the respondent is from Sweden and whether the interview occurred post-attack. This approach should reveal the bombing's causal effect, assuming that in the absence of the attack, treatment (Sweden) and control groups (other European countries) would exhibit the same change in attitudes toward migrants. However, this assumption is untestable directly. I bolster the credibility of this assumption by presenting a graphical representation of how the beliefs evolved in both groups before the attack and a regression to evaluate if the trends statistically differ. I also apply this strategy to examine the attack's impact on different societal groups, conducting heterogeneity analysis for political orientation, income level, education years, gender, and age. Additionally, I vary the pre- and post-attack analysis periods to assess coefficient sensitivity to different timeframes.

The methodological approach of this study represents a departure from the norm in the field, offering a unique perspective on the subject matter. Many prior studies have focused exclusively on the nation where a terrorist attack occurred, without providing a counterfactual for comparison (Peri, Rees and Smith 2023; Nagel and Lutter 2020; Castanho Silva 2018). Other research has examined the impact of terrorist attacks on attitudes in foreign nations, as noted in the works of Legewie (2013) and Nussio, Bove, and Steele (2019). These studies capitalize on the circumstance that the surveys were conducted around the time of a terrorist attack. However, they do not incorporate a control group into their methodology. This absence of a control group raises questions about if the effect captured is only due to the tragic events. Specifically, it is unclear whether the results reflect broader, Europe-wide trends or only the direct impact of the terrorist attack.

In contrast, by employing a DiD estimation approach, this study aims to mitigate such concerns. By incorporating a control group, this approach facilitates the control of these broader trends that may influence attitudes toward migrants, assuming the parallel trends assumption holds. This gives a more robust interpretation of the causal effects of terrorist attacks on attitudes toward migrants.

Contrary to most literature, the main results indicate that the terrorist attack positively affected attitudes toward migrants. This outcome may be attributable to increased social capital and unity in the country, translating into a broader sense of community that

encompasses migrants. A robustness check using the same regression method for the Charlie Hebdo terrorist attack yielded similar coefficients, enhancing the credibility of the results.

This paper is organized as follows: Section I reviews relevant literature on the topic. Section II describes the utilized data. Section III details the methodology of the main regression, different specifications, and pre-treatment trend analysis. Section IV assesses the DiD assumptions and concerns of randomization. Section V presents the results of the different equations and regressions. Section VI discusses these findings and potential areas for future research. Section VII talks about some of the limitations and Section VIII concludes. Five appendices are also included.

Literature review

In terms of empirical evidence, the literature on how terrorist attacks affect attitudes toward migrants is mixed. However, it does tend to show a small negative effect in the aftermath of these tragic events (Godefroidt 2023). Remarkably, these effects depend on both personal contexts as well as country-level characteristics.

Most of the studies on this topic leverage the timing of the events that happened while the surveys were being rolled-out. Hence, creating a quasi-experimental setting where the causal effect of a terrorist attack on beliefs about migration can be obtained (Finseraas and Listhaug 2013; Arvanitids, Economou and Kollias 2016; Castanho Silva 2018; Nagel and Lutter 2020). Here, the results are mixed, with some studies finding negative effects and others not finding any statistically significant estimates.

The first body of literature about this theme explores the 9/11 terrorist attack. In these, the results are mostly cohesive and show a negative shift in attitude toward migrants in the aftermath of the attack in the United States of America, nevertheless, the results are, generally, short-lived (Panagopoulos 2006). In line with this, Hopkins (2010) in his comprehensive study with panel data, using surveys before and after the attack, shows that after the terrorist attack, Americans did have a negative and important shift in beliefs about migrants. Nevertheless, by March 2003, these had already come back to pre-treatment levels.

Still using the 9/11 terrorist attack as the event to grasp the change in attitudes. Some studies pursue to see how this tragic event affected beliefs toward migrants in Europe. Both Schuller (2016) and Aslund and Rooth (2005) find that beliefs about migrants were negatively affected

in the aftermath of the attack. Notwithstanding, this did not translate into worse labor market outcomes for migrants in the European countries where the studies were conducted.

With the unfortunate increase of terrorist attacks in Europe, the number of studies about how terrorism in European countries affects the population's view of migration and migrants has also increased. Nussio, Bove and Steele (2019) using Eurobarometer survey data explore how attitudes toward migrants changed in the aftermath of the Bataclan attack. Their results suggest that these attitudes are mostly affected in areas with low migration levels. Remarkably for zones with more than 200 migrants by 1000 habitants the effect is positive but non-significant. Also focusing on France, Castanho Silva (2018) sees what are the effects on beliefs about migrants after the Charlie Hebdo and the Bataclan attack. Here, for the Bataclan incident, there are no statistically significant effects, although, the coefficients do show a positive trend. There are also no discernible effects of the Charlie Hebdo attack.

Nagel and Lutter (2020) employ the same quasi-experimental setting with data from the ESS round 8, to see how the Christmas market attack in Berlin affected societal responses about, specifically, refugees. Their analysis finds an effect of the event on people that identify as right-wing. This effect then had spillovers for the rest of the population, due to public discourse about topics surrounding refugees and giving them asylum.

Finally, Peri, Rees and Smith (2023) explore how terror attacks in Europe affected individuals' political attitudes and orientation, using survey data from 2002 to 2018. The paper finds no evidence that terror attacks in Europe lead to a worsening of attitudes toward migrants. Additionally, in some specifications of their strategy, they find a positive shift in beliefs about migration in the aftermath of terrorist attacks in some countries, being one of these Sweden.

Most of these studies exploit the fact that surveys were being rolled out when the terrorist attacks happened to grasp the causal effect that they had on attitudes toward migrants. However, the methodologies of these studies lack a counterfactual as they rely on survey responses from a single country before and after the attack. This creates some concerns, specifically, if there were any other trends or events that affected these results.

By employing a new empirical strategy, that was not used before in this topic I seek to grasp the causal effect of the terrorist attack on how society changed their opinion about migration. By creating a control group consisting of other European countries there is a lower concern that other events might be biasing the results. Therefore, this thesis seeks to contribute to this

body of literature with an innovative approach, that wants to provide the causal effect of a terrorist attack on attitudes toward migrants.

Data

The dataset for this thesis comes from the European Social Survey (ESS), given its rich and expansive collection of data on various socio-economic aspects of European societies. As a large-scale, cross-national research project conducted over a periodicity of two years, ESS offers great insights into trends in European societies such as social values, attitudes, behaviors, and economic indicators. With its standardized interview procedure, the survey abords a broad scope of subjects, including issues related to inequality, migration, institutional and social trust, political opinions, and subjective well-being.

For the purpose of this study, the focus will be on Round 5 of the ESS – titled *"Family, Work, and Well-being, Justice"* – which was administered between August 31, 2010, and October 10, 2013, across 27 European countries (ESS round 5). I will mainly focus on the 45 days before and after the terrorist attack. This round's timing is particularly relevant as it happened in Sweden during the months before and after the Stockholm bombing of December 11, 2010, which is the central event under investigation in this thesis. Therefore, there are individuals interviewed before and after the terrorist attack, which can be exploited to infer the potential shifts in attitudes toward migration in the wake of this incident. Exploiting the fact that both the dates and individuals interviewed were randomly assigned. Hence, creating a quasi-natural experiment setting for my research.

In total, the data used is constituted by 9 163 individuals, from those 725 individuals are from Sweden, with 506 before the terrorist attack and 219 after. The rest of the individuals are part of the control group. The age of the individuals interviewed is between 18 and 65 years. There are 20 countries present in this dataset, which are: Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Finland, France, Germany, Hungary, Israel, the Netherlands, Norway, Poland, Portugal, Russia, Slovakia, Slovenia, Sweden (the country where the attack occurred), Switzerland and the United Kingdom.

To grasp the effect of the terrorist attack on the beliefs of Swedish individuals toward migration, the ESS Round 5 has answers to five questions related to migration and beliefs

about migrants. These questions serve as the primary data source for gauging the shift in individuals' responses and perceptions about this particular topic. The questions are:

(1) "To what extent should [country] allow people of a different race or ethnic group from most [country] people to come and live here?"

(2) "What about people from the poorer countries outside Europe?"

(3) "Would you say it is generally bad or good for [country]'s economy that people come to live here from other countries?"

(4) "Would you say that [country]'s cultural life is generally undermined or enriched by people coming to live here from other countries?"

(5) "Is [country] made a worse or a better place to live by people coming to live here from other countries?"

Respondents had five possible answers for the first two questions: [1] Allow many to come and live here, [2] Allow some, [3] Allow a few, [4] Allow none, [8] Do not know. The remaining questions invited respondents to rate their opinions on a scale of 0 to 10. To make the interpretation easier, all questions are rescaled to be between 0 to 1, with closer to 1 meaning that your beliefs toward migrants are more positive. Furthermore, an index joining all the questions mentioned above was also created. This Index is the row mean of all the questions previously stated and was created to show the full scope of how attitudes shifted after the attack.

In summary, this data section establishes the dataset used for the investigation of the causal relationship between terrorism and attitudes toward migrants. By drawing on the rich, cross-national data provided by the ESS, this study aims to contribute valuable insights into the impact of terrorism on societal attitudes toward migration, in the context of the 2010 Stockholm bombing.

Methodology

Main strategy and regression

To estimate the causal effect of the Stockholm terrorist attack on attitudes toward migration, I will employ a Difference-in-Differences (DiD) regression model. This method will effectively leverage the exogeneity of the bombing and the random assignment of individuals and survey dates. The model can be expressed by the following equation:

$$(1) \quad Y_{itc} = \beta_0 + \beta_1 * Sweden_c * After_t + X_i + C_c + W_t + \varepsilon_{itc}$$

In this equation, $Sweden_c$ is a binary variable that equals one if the individual is from Sweden and zero if not. $After_t$ is another binary variable that takes the value 1 if the interview was conducted post-terrorist attack and 0 if it was pre-terrorist attack. The set X_i includes individual controls such as age, gender, marital status, years of education, and income level. C_c represents a complete set of country fixed effects, while W_t includes week fixed effects. The coefficient of interest is β_1, which is the interaction term between $Sweden_c$ and $After_t$. It captures the causal effect of the terrorist attack on beliefs about migration.

I will run multiple versions of this equation using the different questions specified in the dataset as well as the Index as the outcome of interest (Y_{itc}). Furthermore, the time window will be adjusted to assess the model's sensitivity, examining three different time frames: the full sample, 30 days before and after the attack, and 20 days before and after the attack. In the appendix, additional regression results of different specifications of the equation will be provided, including models with and without certain control variables and using different groups as the control (comprising only bordering or non-bordering countries, the bordering countries are Denmark, Finland, and Norway).

Finally, it is important to point out that population as well as sample design weights are used due to the specification of the interview process and the random assignment of individuals.

Parallel trend assumption

The Difference-in-Differences (DiD) coefficient estimates from equation (1) are supposed to identify the causal effect of the Stockholm bombing on beliefs about migration. This will be the case if the parallel trend assumption holds. Because the counterfactual outcomes can not be observed directly, this assumption can not be explicitly tested. Nonetheless, the trends in the outcome measures leading up to the terror attack can be analyzed and compared to check

if they statistically differ between Sweden and the control countries. This is another analytical process to give credibility to the main assumption. However, the results of this analysis do not definitely establish if the parallel assumption holds or not, only give more evidence as to why this can be assumed.

To undertake these comparisons, this equation focuses on individuals surveyed before the terror attack. Here, $Days_t$ refers to the number of days between each respondent's survey date and the Stockholm bombing. This enables us to estimate different versions of the equation (2):

$$(2)\ Y_{itc} = \alpha_0 + \alpha_1 * Sweden_c * Days_t + X_i + C_c + W_t + \varepsilon_{itc}$$

This approach seeks to assess whether the trends in beliefs about migration in Sweden and the control group were not statistically different leading up to the terror attack, the estimate of interest is α_1 . Appendix A shows the results of this regression for all the different outcomes. All the coefficients are non-significant, therefore the trends in all questions leading up to the attack are statistically not different. This gives even more credibility to the parallel trend assumption that is needed for the DiD estimation method.

Spill-over effects

The impact of a terrorist attack is not only felt in the country but can also have an impact abroad. For this reason, I will also employ equation (3) to see if there are any spill-over effects for the bordering countries (Norway, Denmark, and Finland):

$$(3)\ Y_{itc} = \delta_0 + \delta_1 * Sweden_c * After_t + \delta_2 * Borderingcountries_c * After_t + X_i + C_c + W_t + \varepsilon_{itc}$$

In this equation, the coefficient of interest is δ_2, which is the interaction term between if the country is bordering Sweden ($Borderingcountries_c$) with if the individual was surveyed after the terrorist attack ($After_t$), this estimate will show if the terrorist attack had any impact on the countries that border Sweden. Once again, the regression includes a full set of individual controls, week-fixed effects, and country-fixed effects.

This equation also serves to bolster the parallel trend assumption and the causality of the results. If there are no spill-over effects to the border countries, it is not expected that there will be any in other countries. This, therefore, gives more credibility to the control group and the methodology used.

Survey design and DiD specifications

Trend analysis

The employment of the Difference-in-Differences (DiD) estimation strategy aims to identify the causal effect of the terrorist attack on beliefs toward migrants. This will be achieved if the average change in the different aspects of attitudes toward migration among individuals in Sweden would be equal to the average change in attitudes among individuals in the control countries if the terrorist attack had not occurred.

However, it's important to note that this assumption can't explicitly be tested or seen as there is no data on the counterfactual scenario in Sweden. Additionally, to equations (2) and (3), to support the parallel trend assumption, I plot the evolution of the different questions and Index about migration for Sweden and the control group. This can be seen in figures 1 to 6, these outcomes are plotted as functions of days since the bombing took place.

Upon visual examination of each figure, it can be observed that the trends in Sweden in the time leading up to the attack were almost identical to those in the control group. This visual evidence lends credibility to the DiD estimation strategy, due to the fact that it reinforces the parallel trend assumption by showing that leading to the attack the trend between the treatment and control group were identical. Therefore, it strengthens the assumption that in the absence of treatment, the treatment group (Sweden) and the control group (other European countries) would have had the same trend in attitudes toward migrants.

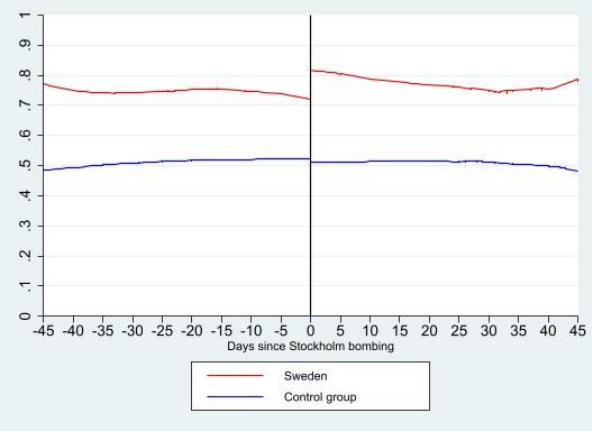

Figure 1. Allow many/few immigrants of different race or ethnic group from majority?

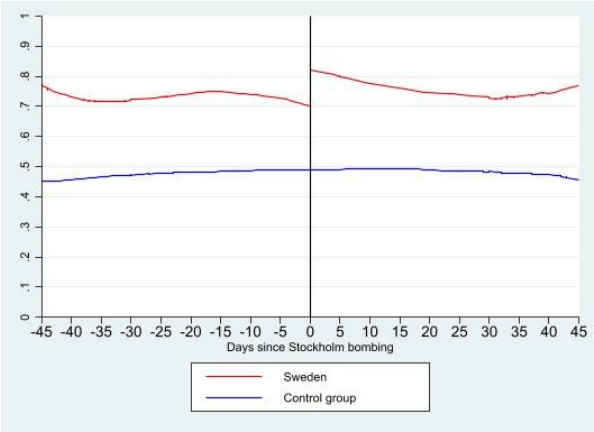

Figure 2. Allow many/few immigrants from poorer countries outside of Europe?

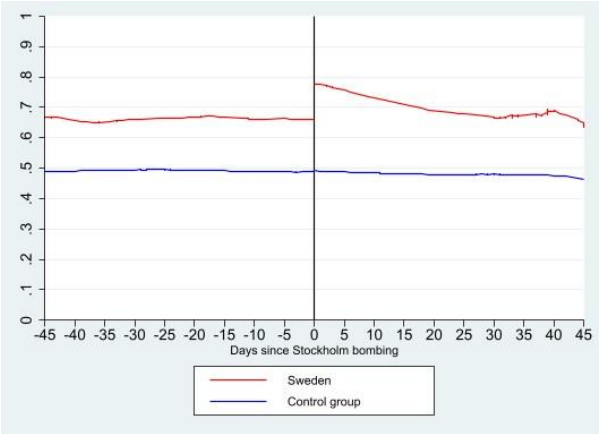

Figure 3. Immigration bad or good for country's economy

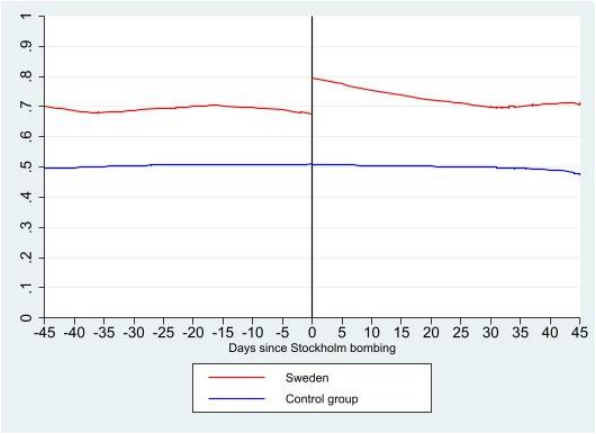

Figure 4. Is Country's cultural life undermined or enriched by immigrants?

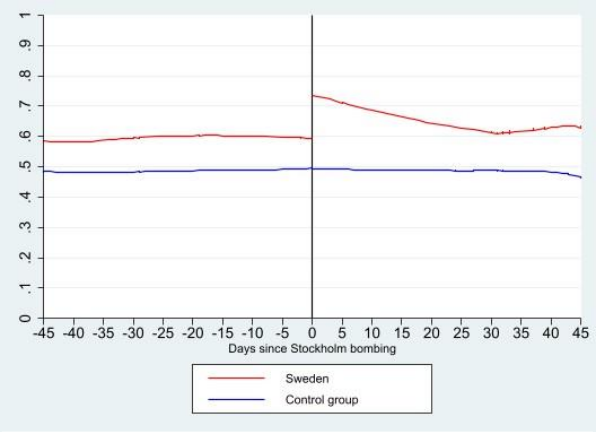

Figure 5. Are immigrants bad or good for country's economy?

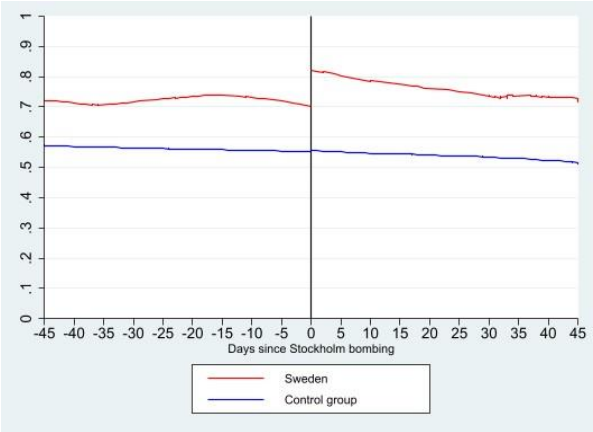

Figure 6. Index about attitudes toward migration

Background characteristics

Normally, DiD regressions use the same individuals in different periods of time in their analysis. Therefore, there is not the problem of their characteristics changing drastically, and consequently not being able to grasp the causal effect through this method. Nevertheless, in my empirical strategy, due to the characteristics of the survey dataset, individuals are not the same before and after the terrorist attack, both in Sweden and in the Control group. So, in this specific case, there is the concern that the characteristics of the individuals changed drastically, making the group before and after the attack not comparable. Hence undermining the results obtained, as they would not be the causal effect of the bombing on attitudes toward migration.

To mitigate these concerns, tables 1 and 2 show the background characteristics of both Sweden and the Control countries before and after the attack, as well as the difference between them. There is the mean of age, the percentage of females in the sample, the average years of education, the percentage of individuals for different marital statuses, and the percentage of individuals for each income level. These values are presented for the full sample, 30 days before and 30 days after the attack and 20 days before and 20 days after.

In the case of Sweden, there is a discernable difference in the means of years of education for individuals before and after the terrorist attack, this difference is only significant for the two smaller timeframes. Regarding the control group, a noteworthy divergence is found in the mean age for the full sample. Moreover, there is a statistically significant difference in the average years of education across all three-time windows. Furthermore, minor but statistically significant differences are detected in some marital status and income levels.

However, it should be noted that all these differences are relatively not that pronounced. Despite these disparities, the evidence primarily suggests that the groups under study are substantially comparable. This analysis lends credibility to the adequacy of the sample groups, reinforcing the validity of the observed trends and outcomes in the study.

Furthermore, to further mitigate these concerns and to assess the randomization gotten through the survey of the individuals interviewed before and after the attack, Appendix B shows a balance check. This analysis used in different studies on this particular topic and with a similar methodology (Legewie 2013; Nagel and Lutter 2020), consists in a binary logistic regression where the $After_t$ variable is the dependent variable, and the exogenous part of the model consists of the control variables. If the coefficients gotten from this regression are non-significant it means that there are no statistically significant differences between the group before and after the attack. Appendix B shows these results for the 3 different time windows. Most coefficients are non-significant, strengthening the randomization assumption of individuals before and after the attack. However, there are some statistically significant estimates, which are related to the age of individuals in the full sample (nevertheless, small), and the income level for the middle time window.

Table 1. Background characteristics (Sweden)

	[-45 days, 45]			[-30 days, 30]			[-20 days, 20]		
	Before	After	Diff	Before	After	Diff	Before	After	Diff
Age	43.35	43.30	0.052	42.61	41.75	0.861	41.85	41.83	0.019
	(0.603)	(0.913)	[0.9619]	(0.742)	(1.586)	[0.6187]	(1.006)	(1.758)	[0.9924]
Female	0.5198	0.5251	-0.0053	0.517	0.533	-0.0166	0.532	0.547	-0.0153
	(0.022)	(0.034)	[0.8948]	(0.028)	(0.058)	[0.7955]	(0.036)	(0.063)	[0.8328]
Years of education	13.49	13.71	-0.2202	13.65	14.61	-0.9628	13.63	14.66	-1.0247
	(0.139)	(0.229)	[0.3965]	(0.173)	(0.415)	[0.0204]	(0.235)	(0.419)	[0.0311]
Marital status									
Legally married	0.427	0.402	0.0250	0.4133	0.40	0.0133	0.4105	0.375	0.0355
	(0.022)	(0.033)	[0.5309]	(0.027)	(0.057)	[0.8323]	(0.036)	(0.061)	[0.6177]
Civil union	0.0040	0.0091	-0.0052	0.0061	0.00	0.0061	0.0053	0.00	0.0053
	(0.00279)	(0.0064)	[0.388]	(0.0043)	(0)	[0.4997]	(0.0052)	(0)	[0.5627]
Divorced	0.128	0.1096	0.0189	0.1155	0.1067	0.1139	0.1263	0.125	0.0013
	(0.0149)	(0.0212)	[0.4778]	(0.1764)	(0.0359)	[0.8284]	(0.0242)	(0.042)	[0.9782]
Partner died	0.0099	0.0228	-0.0129	0.0091	0.013	-0.0042	0.0053	0.0156	-0.0104
	(0.0044)	(0.0101)	[0.1703]	(0.0052)	(0.0133)	[0.7401]	(0.0053)	(0.016)	[0.4193]
None of those	0.431	0.457	-0.0258	0.456	0.48	-0.0241	0.4526	0.4844	-0.0317
	(0.022)	(0.0337)	[0.5212]	(0.0275)	(0.0581)	[0.7067]	(0.0362)	(0.063)	[0.6610]
Level of income									
1st decile	0.0632	0.1050	-0.0418	0.0760	0.1467	-0.0707	0.0947	0.1719	-0.0771
	(0.0108)	(0.0208)	[0.0512]	(0.0146)	(0.0411)	[0.0527]	(0.0213)	(0.0475)	[0.0940]
2nd decile	0.0474	0.0548	-0.0074	0.0365	0.080	-0.0435	0.0368	0.09375	-0.0569
	(0.0095)	(0.0154)	[0.6757	(0.0104)	(0.0315)	[0.0997]	(0.0137)	(0.0367)	[0.0745]
3rd decile	0.0474	0.0594	-0.0119	0.0486	0.02667	0.02197	0.0421	0.03125	0.01086
	(0.0095)	(0.0160)	[0.5034]	(0.0119)	(0.1622)	[0.4067]	(0.0146)	(0.0219)	[0.7007]
4th decile	0.0711	0.0502	0.02092	0.0638	0.040	0.0238	0.0526	0.0469	0.0058
	(0.0114)	(0.0148)	[0.2942]	(0.0135)	(0.0228)	[0.432]	(0.0162)	(0.0266)	[0.8573]
5th decile	0.0711	0.0594	0.01179	0.07294	0.0667	0.0063	0.0842	0.0625	0.02171
	(0.0114)	(0.016)	[0.5623]	(0.0144)	(0.030)	[0.8496]	(0.0202)	(0.0305)	[0.5788]
6th decile	0.1008	0.1233	-0.0225	0.1003	0.1333	-0.033	0.1052	0.125	-0.0197
	(0.0134)	(0.0222)	[0.3701]	(0.0166)	(0.0395)	[0.4038]	(0.0223)	(0.0417)	[0.6643]
7th decile	0.0909	0.0913	-0.0004	0.08207	0.0533	0.02873	0.0632	0.0625	0.0007
	(0.0128)	(0.0195)	[0.9858]	(0.0151)	(0.0261)	[0.4001]	(0.0177)	(0.0305)	[0.9851]
8th decile	0.1047	0.1142	-0.0094	0.0942	0.1067	-0.0124	0.0947	0.09375	0.0095
	(0.0136)	(0.0215)	[0.7077]	(0.0161)	(0.0359)	[0.7427]	(0.0213)	(0.0367)	[0.9815]
9th decile	0.1759	0.1187	0.0572	0.1581	0.08	0.0781	0.1789	0.0781	0.1008
	(0.0169)	(0.0219)	[0.0531]	(0.0201)	(0.0315	[0.0823]	(0.0279)	(0.0338)	[0.0533]
10th decile	0.2272	0.2237	0.0035	0.2674	0.2667	0.0008	0.2474	0.2344	0.013
	(0.0186)	(0.0282)	[0.9171]	(0.0244)	(0.0514)	[0.9886]	(0.0314)	(0.0534)	[0.8350]

Note: For each of the 3 time windows, this table reports sample means for the background categories as well as sample standard errors or p-value in brackets. For female, marital status and level income the table reports the percentage for each category.

Table 2. Background characteristics (Control Countries)

	[-45 days, 45]			[-30 days, 30]			[-20 days, 20]		
	Before	After	Diff	Before	After	Diff	Before	After	Diff
Age	43.19	44.23	-1.039	43.32	43.76	-0.432	43.59	43.48	0.112
	(0.178)	(0.208)	[0.0002]	(0.237)	(0.304)	[0.2614]	(0.313)	(0.417)	[0.8298]
Female	0.5155	0.5247	-0.0092	0.5128	0.5155	-0.0028	0.499	0.495	0.0034
	(0.0068)	(0.0079)	[0.378]	(0.0091)	(0.0115)	[0.8497]	(0.012)	(0.0159)	[0.8641]
Years of education	13.46	12.75	0.711	13.50	12.80	0.7002	13.46	12.93	0.5245
	(0.048)	(0.0622)	[0.00]	(0.064)	(0.088)	[0.00]	(0.084)	(0.122)	[0.0003]
Marital status									
Legally married	0.493	0.5252	-0.0318	0.5002	0.5107	-0.0105	0.4994	0.5056	-0.0062
	(0.0068)	(0.0079)	[0.0023]	(0.0091)	(0.0115)	[0.4748]	(0.012)	(0.0159)	[0.7576]
Civil union	0.0151	0.0121	0.0030	0.0142	0.0139	0.0003	0.15	0.0152	-0.0002
	(0.0016)	(0.0017)	[0.2107]	(0.0021)	(0.0027)	[0.931]	(0.0029)	(0.004)	[0.9616]
Divorced	0.105	0.1179	-0.013	0.1103	0.122	-0.012	0.1073	0.122	-0.0145
	(0.0041)	(0.0051)	[0.0466]	(0.0057)	(0.0076)	[0.2090]	(0.0074)	(0.0061)	[0.2483]
Partner died	0.0281	0.039	-0.011	0.0283	0.0341	-0.0058	0.0283	0.0234	0.0049
	(0.0022)	(0.0031)	[0.0031]	(0.003)	(0.0041)	[0.2512]	(0.004)	(0.0048)	[0.4438]
None of those	0.2791	0.2907	-0.0116	0.279	0.287	-0.0081	0.273	0.273	0.0002
	(0.0061)	(0.0072)	[0.2177]	(0.0081)	(0.0105)	[0.5406]	(0.0107)	(0.0142)	[0.9883]
Level of income									
1st decile	0.0677	0.0816	-0.0139	0.0668	0.0858	-0.019	0.0692	0.068	0.0012
	(0.0034)	(0.0208)	[0.0104]	(0.0045)	(0.0065)	[0.0136]	(0.0061)	(0.008)	[0.9067]
2nd decile	0.0825	0.0728	0.0096	0.078	0.0698	0.0082	0.0738	0.0721	0.0017
	(0.0037)	(0.0041)	[0.0848]	(0.0049)	(0.0059)	[0.2884]	(0.0063)	(0.0082)	[0.8673]
3rd decile	0.089	0.0801	0.0087	0.0922	0.0874	0.0048	0.0859	0.0944	-0.0085
	(0.0038)	(0.0043)	[0.1332]	(0.0053)	(0.0065)	[0.5706]	(0.0067)	(0.0093)	[0.4552]
4th decile	0.0998	0.0793	0.0204	0.0935	0.0874	0.0061	0.094	0.0853	0.0087
	(0.004)	(0.0043)	[0.0007]	(0.0053)	(0.0065)	[0.4711]	(0.007)	(0.0089)	[0.447]
5th decile	0.1038	0.0935	0.01034	0.1001	0.0959	0.0042	0.1003	0.0975	0.0029
	(0.0041)	(0.0046)	[0.0972]	(0.0054)	(0.0068)	[0.6354]	(0.0072)	(0.0095)	[0.8091]
6th decile	0.1209	0.0909	0.03	0.1159	0.088	0.028	0.1153	0.0893	0.026
	(0.0044)	(0.0046)	[0.00]	(0.0058)	(0.0065)	[0.0019]	(0.0077)	(0.0091)	[0.0342]
7th decile	0.1204	0.0957	0.0247	0.1195	0.1002	0.0193	0.1182	0.1127	0.0055
	(0.0044)	(0.0047)	[0.0002]	(0.0059)	(0.0069)	[0.0372]	(0.0078)	(0.0101)	[0.6653]
8th decile	0.1096	0.1033	0.0064	0.1133	0.1061	0.0072	0.12	0.1117	0.0083
	(0.0042)	(0.0048)	[0.3237]	(0.0058)	(0.0071)	[0.4348]	(0.0078)	(0.01)	[0.5187]
9th decile	0.1	0.0879	0.0121	0.106	0.0884	0.0175	0.105	0.0944	0.0105
	(0.0041)	(0.0045)	[0.0484]	(0.0056)	(0.0066)	[0.0458]	(0.0074)	(0.0093)	[0.381]
10th decile	0.1025	0.0897	0.0128	0.109	0.0949	0.0141	0.1125	0.1036	0.0089
	(0.0041)	(0.0045)	[0.0374]	(0.0057)	(0.0068)	[0.115]	(0.0076)	(0.0097)	[0.4746]

Note: For each of the 3 time windows, this table reports sample means for the background categories as well as sample standard errors or p-value in brackets. For female, marital status and level income the table reports the percentage for each category.

In conclusion, both analyses show no great gap or difference in individual characteristics between the group before and after the bombings. This gives more credibility to the estimation process and the assumptions that underly it. Despite that, there are two small differences between the groups that must be considered.

Results

This section presents the estimation coefficients of the different equations presented in the methodology section. The dependent variables, in the tables below, are the 5 questions provided in the survey and the Index created through a row mean of those. The first question assesses the extent to which respondents believe people of a different race or ethnic group should be allowed to come and live in Sweden. The second question focuses on respondents' views on people from poorer countries outside Europe. The third question explores whether respondents believe that people coming to live in Sweden from other countries have a positive or negative impact on the country's economy. The fourth question sought to determine if respondents believe that the cultural life in Sweden is undermined or enriched by migrants. The fifth question aims to ascertain whether respondents believe that migrants make Sweden a worse or better place to live. A positive coefficient means that the terrorist attack had a positive impact on the answers to these questions, so attitudes toward migrants were positively impacted by the tragic event.

Main Results

In Table 3 are presented the main results of the estimation of Equation 1. These are coefficient estimates of the interaction term of the treatment group after the Stockholm terrorist attack, β_1, obtained by estimating variations of equation 1, with the outcome variables being the different questions as well as the Index. As shown in equation 1, when running this equation week fixed effects, individual controls, and country-fixed effects are included. Furthermore, the standard errors are Huber-White robust standard errors[3], in Appendix C the same regression is run with clustered standard errors at the country level. The first panel reports the estimates for the full sample used (45 days before and 45 days after the terrorist attack), the second panel reports coefficients for the time window of 30 days before and 30 after the attack, finally the third panel shows the estimates for the smaller sample, of 20 days before

[3] The main estimation includes Huber-White standard errors due to the lack of clusters at the country-level, however in appendix C I run the same regression with clustered standard errors.

and 20 days after the bombing.

Putting the first emphasis on the first panel, it can be seen that the terrorist attack had a statistically significant positive impact on 4 out of the 6 measures of beliefs toward migration. The 2 that were not statistically significant were question 2 and question 5. For the Index about attitudes toward migration, the impact was positive, meaning that the terrorist attack increased the Index by 3.46 percentage points. This means that the terrorist attack had a positive impact on beliefs about migration. For questions 1 and 3 the impact was larger, 0.0512 and 0.0408, respectively. For question 4 the impact was 0.0318 and significant at the 10% level, contrary to the other two questions that were statistically significant at the 5% level.

Shifting the focus to the second panel with a lower time window, here only 1 out of 6 scopes of the attitudes about migration are statistically significant. However, the coefficient estimates are mainly larger than they were for the bigger time frame. In this specification, the bombing did not have a statistically significant impact on the Index that represents how the population perceives migration. However, it did have question 3 which had a coefficient estimate of 0.0602, statistically significant at the 5% level. The non-significance of most estimates in this time window might be due to more volatility in the answers during this period. Nevertheless, they do present the same pattern as the other two time windows. Therefore, it still provides valuable insight into how attitudes toward migration shifted in the aftermath of the terrorist attack.

In the third panel, with an even smaller time frame the positive impact on the Index was larger, 5.05 percentage points, and statistically significant at the 10% level. The remaining questions followed the same trend, apart from question 2. Questions 3 and 5 had a statistically significant coefficient of 0.0722 and 0.0531, respectively. Additionally, question 1 also was impacted positively, with a coefficient of 0.0605 significant at the 10% level.

It is important to refer that different specifications of equation 1 are presented in Appendix D, differing the controls utilized and changing the control group to only include the bordering countries or excluding them.

Notably, results showed a level of consistency across these varying setups. For questions 2, 3, and 5 the results across the 3 different specifications are similar in all 3 different time periods. For the Index the coefficients are pretty similar as well, however, they do differ at some level when the control group only includes bordering countries. In questions 1 and 4 the differences

are mostly of when the coefficients are statistically significant. Even with these differences, the coefficients show a level of consistency across different model specifications, which provides some more robustness to the effects obtained in the main estimation.

As for the full scope of the main results, there are some trends important to point out. Question 2 which asked about how many migrants from poorer countries outside of Europe should Sweden accept, did not have a statistically significant result in the 3 different time periods. This might be due to the origins of the perpetrator of the attack and supports the hypothesis that individuals can differentiate between the type of migrants (Nagel and Lutter 2020, for attitudes toward refugees). As for question 3, the coefficients are significant in the 3 different timeframes, and at the 5% level. This question is about how migrants impact the economy of the country, showing that respondents after the attack had a more positive view on this topic. Nevertheless, all coefficients are positive even the ones that are not statistically significant.

In conclusion, the terrorist attack had an overall positive shift in attitudes toward migrants. However, some coefficients are not statistically different from zero. Question 3 is statistically significant in all the different time windows. Furthermore, the Index is significant in two out of 3 specifications, with a coefficient ranging from 0.0346 to 0.0505. Additionally, by reducing the time window, it can be observed that the effect is higher, this could mean that the effect started to die out after the terrorist attack. This is in line with previous research.

Heterogeneity analysis

Terrorist attacks do not affect the population in the same way. Therefore, next, I evaluate how the bombing impacted different groups with certain characteristics inside the population of Sweden.

Given the fact that both terrorism and migration and the link between the two are very politically connotated topics, additionally, literature shows different impacts for right-leaning and left-leaning individuals (Pardos-Prado 2011; Rustenbach 2010). Table 3 shows how the effect of the terrorist attack varies across the political orientation of individuals. Furthermore, some studies find differences in the attitudes toward migrants due to the level of economic conditions and education years (Ceobanu and Escandell 2010; Hainmueller and Hiscox 2010; Legewie 2013). Therefore, tables 4 and 5 show heterogeneity analysis for years of education and income level, to see how these characteristics attenuate or exacerbate the effect of the terrorist attack.

Table 3. Main DiD analysis

[-45 days, 45]	Question 1	Question 2	Question 3	Question 4	Question 5	Index
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment * After	0.0512**	0.0257	0.0408**	0.0318*	0.0236	0.0346**
	(0.0203)	(0.0217)	(0.0181)	(0.0193)	(0.0181)	(0.0157)
Observations	9,163	9,163	9,163	9,163	9,163	9,163
R-squared	0.136	0.150	0.137	0.178	0.166	0.206
[-30 days, 30]	(1)	(2)	(3)	(4)	(5)	(6)
Treatment * After	0.0512	0.0284	0.0602**	0.0314	0.0315	0.0405
	(0.0327)	(0.0325)	(0.0281)	(0.0293)	(0.0272)	(0.0249)
Observations	4,854	4,854	4,854	4,854	4,854	4,854
R-squared	0.129	0.140	0.132	0.173	0.167	0.199
[-20 days, 20]	(1)	(2)	(3)	(4)	(5)	(6)
Treatment * After	0.0605*	0.0258	0.0722**	0.0409	0.0531*	0.0505*
	(0.0365)	(0.0364)	(0.0306)	(0.0331)	(0.0310)	(0.0271)
Observations	2,700	2,700	2,700	2,700	2,700	2,700
R-squared	0.149	0.169	0.128	0.176	0.163	0.209

Note: ***P<0.001, **P<0.05, *P<0.10 Columns (1) to (6) report coefficients estimate of the interaction term, β_1, of equation 1 with robust standard errors in parenthesis. The outcome variable of equation 1, is the 5 questions about attitudes toward migration as well as the Index.

Table 4 shows the results of the heterogeneity analysis for individuals that self-identify as right-wing or left-wing. This means individuals that answered that they are between 0 and 3 (left-wing) or between 7 and 10 (right-wing) on the left-right political scale, which goes from 0 to 10. The coefficients for the left-wing individuals are not statistically distinguishable from 0. This is the case across the 3 different time windows used. However, most coefficients are negative. As for right-wing individuals, the coefficient estimates are all positive and mostly significant in the different time frames. Apart from question 2 which none of the coefficients are significant and question 5 which only one of them is significant at the 10% confidence level. The estimates of this regression are quite larger than the ones from the main specification for the whole population. The Index had a coefficient of 0.0651 in the larger time frame, 0.0957 in the second time specification, and 0.108 in the smaller one.

Table 5 shows the heterogeneity analysis for years of education where the population is divided into two groups: if they have 11 or fewer years of education or if they have more. For individuals with low education, there is no significant impact when using the full sample. But this is not the case for the other time windows. In the time frame of 30 days before and 30 days after the attack, questions 1,4 and 5 as well as the Index range from 0.0909 to 0.151, with all being significant at the 5 or 10% level. As for the smaller time frame, there is the same pattern as in the previous one. However, the coefficients are even larger, ranging from 0.105 to 0.166. These results should be taken with caution due to the low sample of individuals with low education in Sweden. As for individuals with high education, here the coefficients are once again positive, however quite smaller than for people with low education. Additionally, a lot of the results are not statistically significant. For the Index, the coefficient is only significant for the larger time window with a coefficient of 0.0404. The only one that has a significant estimate for all the time specifications is question 3, with them going from 0.0546 to 0.0757.

Lastly, table 6 presents the results of the heterogeneity check for the income level, here the individuals are divided into low-income individuals and high-income individuals. Beliefs toward migration of low-income people were quite impacted by the terrorist attack. This was the case especially for the smaller time window of 20 days before the attack and 20 days after the attack. The Index that measures attitudes about migrants increased by 0.102 and the estimate is statistically significant at the 1% level. The other measures were also significant, except from question 2, and ranged from 0.0984 to 0.155. In relation to high-income

individuals, here most coefficients are non-significant, except for questions 1, 2, 3 and the Index in the larger time frame. With the coefficients ranging from 0.0387 to 0.0564.

In Appendix E, there are two more heterogeneity analyses for gender and age. For age, individuals are divided if they are older or younger than 44. These coefficients are mainly significant to younger individuals, with estimates being marginally larger than the ones from the main results. As for gender, the results are only significant for men and show quite a larger impact when compared with the main regression, ranging from 0.0518 to 0.138.

In summary, the Stockholm terrorist attack of 2010 had a positive impact that was larger and more predominant on low-income, low-educated, right-wing, and male individuals.

Spill-over effects

Additionally, research has also dived to see whether terrorist attacks do not only affect the individuals in the country where it happened but also others, (Legewie 2013) especially people that live in bordering countries. With this in mind, I will check to see if there are any spill-over effects on Norway, Denmark, or Finland. This can also further reinforce the parallel trend assumption because if there are no spill-over effects it means that these countries were not affected by the terrorist attack, and therefore can be included in the control group.

Additionally, if there are no effects in the bordering countries, it is also not expected that there would be any effect in countries that do not border Sweden. This is the case due to the magnitude of the attack, nobody died apart from the terrorist and only two people were injured. Therefore, the international repercussions were a lot smaller than other recent events.

Table 7 shows that the coefficients of the spill-over effects to the bordering countries are almost all non-significant to all questions as well as the Index. Except for Question 5 for the bigger time window, however, it is only statistically significant at the 10% level. These results give credibility to the DiD estimation method and demonstrate that the effect of the terrorist attack on beliefs about migration was (almost) exclusively contained within Sweden.

Table 4. Heterogeneity analysis – Political orientation

Left-wing	Question 1	Question 2	Question 3	Question 4	Question 5	Index
[-45 days, 45]	(1)	(2)	(3)	(4)	(5)	(6)
Treatment * After	0.0200	-0.00286	0.0108	-0.00343	0.00156	0.00521
	(0.0463)	(0.0462)	(0.0416)	(0.0420)	(0.0429)	(0.0365)
Observations	1,779	1,779	1,779	1,779	1,779	1,779
R-squared	0.226	0.216	0.231	0.219	0.217	0.285
[-30 days 30]	(1)	(2)	(3)	(4)	(5)	(6)
Treatment * After	-0.00222	-0.0636	-0.0245	-0.0711	-0.0431	-0.0409
	(0.0787)	(0.0736)	(0.0592)	(0.0684)	(0.0732)	(0.0609)
Observations	993	993	993	993	993	993
R-squared	0.235	0.215	0.229	0.231	0.223	0.282
[-20 days, 20]	(1)	(2)	(3)	(4)	(5)	(6)
Treatment * After	-0.0456	-0.0545	-0.0685	-0.123	-0.0432	-0.0670
	(0.0944)	(0.0868)	(0.0701)	(0.0812)	(0.0907)	(0.0730)
Observations	564	564	564	564	564	564
R-squared	0.217	0.189	0.225	0.243	0.214	0.265
Right-wing	Question 1	Question 2	Question 3	Question 4	Question 5	Index
[-45 days, 45]	(1)	(2)	(3)	(4)	(5)	(6)
Treatment * After	0.0935***	0.0481	0.0603*	0.0658*	0.0575*	0.0651**
	(0.0353)	(0.0396)	(0.0310)	(0.0345)	(0.0311)	(0.0275)
Observations	2,920	2,920	2,920	2,920	2,920	2,920
R-squared	0.173	0.183	0.158	0.218	0.238	0.241
[-30 days, 30]	(1)	(2)	(3)	(4)	(5)	(6)
Treatment * After	0.0989*	0.0992*	0.0951**	0.112**	0.0727	0.0957**
	(0.0576)	(0.0595)	(0.0463)	(0.0522)	(0.0458)	(0.0433)
Observations	1,462	1,462	1,462	1,462	1,462	1,462
R-squared	0.197	0.219	0.177	0.243	0.266	0.270
[-20 days, 20]	(1)	(2)	(3)	(4)	(5)	(6)
Treatment * After	0.121*	0.117	0.100*	0.117*	0.0873	0.108**
	(0.0696)	(0.0712)	(0.0524)	(0.0616)	(0.0536)	(0.0498)
Observations	783	783	783	783	783	783
R-squared	0.269	0.262	0.183	0.277	0.255	0.308

Note: ***P<0.001, **P<0.05, *P<0.10 Columns (1) to (6) report coefficients estimate of the interaction term, β_1, of equation 1 with robust standard errors in parenthesis for the left-wing (first panel) and right-wing (second panel) individuals. The outcome variable of equation 1, is the 5 questions about attitudes toward migration as well as the Index.

Table 5. Heterogeneity analysis – Years of education

Low education	Question 1	Question 2	Question 3	Question 4	Question 5	Index
[-45 days, 45]	(1)	(2)	(3)	(4)	(5)	(6)
Treatment * After	0.0480	-0.0181	-0.0170	0.0259	0.00626	0.00902
	(0.0426)	(0.0481)	(0.0400)	(0.0388)	(0.0367)	(0.0322)
Observations	2,544	2,544	2,544	2,544	2,544	2,544
R-squared	0.118	0.119	0.116	0.106	0.134	0.146
[-30 days, 30]	(1)	(2)	(3)	(4)	(5)	(6)
Treatment * After	0.151**	0.0452	0.0545	0.109**	0.0950*	0.0909**
	(0.0708)	(0.0785)	(0.0634)	(0.0509)	(0.0494)	(0.0425)
Observations	1,311	1,311	1,311	1,311	1,311	1,311
R-squared	0.126	0.109	0.120	0.113	0.150	0.145
[-20 days, 20]	(1)	(2)	(3)	(4)	(5)	(6)
Treatment * After	0.166*	0.0635	0.0274	0.127*	0.143**	0.105*
	(0.0889)	(0.109)	(0.0845)	(0.0675)	(0.0605)	(0.0598)
Observations	708	708	708	708	708	708
R-squared	0.135	0.144	0.118	0.137	0.158	0.154
High education	Question 1	Question 2	Question 3	Question 4	Question 5	Index
[-45 days, 45]	(1)	(2)	(3)	(4)	(5)	(6)
Treatment * After	0.0472**	0.0421*	0.0546***	0.0310	0.0271	0.0404**
	(0.0230)	(0.0245)	(0.0205)	(0.0222)	(0.0208)	(0.0179)
Observations	6,619	6,619	6,619	6,619	6,619	6,619
R-squared	0.134	0.156	0.142	0.195	0.177	0.214
[-30 days, 30]	(1)	(2)	(3)	(4)	(5)	(6)
Treatment * After	0.0324	0.0403	0.0657**	0.0246	0.0234	0.0373
	(0.0363)	(0.0366)	(0.0316)	(0.0330)	(0.0308)	(0.0284)
Observations	3,543	3,543	3,543	3,543	3,543	3,543
R-squared	0.115	0.144	0.121	0.167	0.160	0.188
[-20 days, 20]	(1)	(2)	(3)	(4)	(5)	(6)
Treatment * After	0.0354	0.0289	0.0757**	0.0323	0.0402	0.0425
	(0.0402)	(0.0408)	(0.0338)	(0.0364)	(0.0348)	(0.0305)
Observations	1,992	1,992	1,992	1,992	1,992	1,992
R-squared	0.140	0.165	0.123	0.177	0.170	0.205

Note: ***P<0.001, **P<0.05, *P<0.10 Columns (1) to (6) report coefficients estimate of the interaction term, β_1, of equation 1 with robust standard errors in parenthesis for low education (first panel) and high education (second panel) individuals. The outcome variable of equation 1, is the 5 questions about attitudes toward migration as well as the Index.

Table 6. Heterogeneity analysis – Income level

Low income	Question 1	Question 2	Question 3	Question 4	Question 5	Index
[-45 days, 45]	(1)	(2)	(3)	(4)	(5)	(6)
Treatment * After	0.0354	-0.00301	0.0435	0.0301	0.0435	0.0299
	(0.0368)	(0.0400)	(0.0327)	(0.0334)	(0.0319)	(0.0288)
Observations	4,074	4,074	4,074	4,074	4,074	4,074
R-squared	0.124	0.127	0.103	0.136	0.129	0.161
[-30 days, 30]	(1)	(2)	(3)	(4)	(5)	(6)
Treatment * After	0.0880	0.0322	0.114**	0.0498	0.0586	0.0685
	(0.0543)	(0.0560)	(0.0476)	(0.0495)	(0.0454)	(0.0418)
Observations	2,128	2,128	2,128	2,128	2,128	2,128
R-squared	0.130	0.124	0.117	0.158	0.137	0.173
[-20 days, 20]	(1)	(2)	(3)	(4)	(5)	(6)
Treatment * After	0.119**	0.0335	0.155***	0.103**	0.0984**	0.102***
	(0.0476)	(0.0506)	(0.0461)	(0.0503)	(0.0445)	(0.0351)
Observations	1,153	1,153	1,153	1,153	1,153	1,153
R-squared	0.149	0.153	0.107	0.140	0.116	0.175
High income	Question 1	Question 2	Question 3	Question 4	Question 5	Index
[-45 days, 45]	(1)	(2)	(3)	(4)	(5)	(6)
Treatment * After	0.0564**	0.0437*	0.0387*	0.0381	0.0163	0.0387**
	(0.0247)	(0.0263)	(0.0217)	(0.0236)	(0.0223)	(0.0188)
Observations	5,089	5,089	5,089	5,089	5,089	5,089
R-squared	0.163	0.176	0.159	0.217	0.195	0.248
[-30 days, 30]	(1)	(2)	(3)	(4)	(5)	(6)
Treatment * After	0.0310	0.0269	0.0218	0.0168	0.0150	0.0223
	(0.0410)	(0.0401)	(0.0341)	(0.0358)	(0.0340)	(0.0307)
Observations	2,726	2,726	2,726	2,726	2,726	2,726
R-squared	0.137	0.151	0.141	0.179	0.189	0.216
[-20 days, 20]	(1)	(2)	(3)	(4)	(5)	(6)
Treatment * After	0.0177	0.0210	0.00750	-0.00534	0.0233	0.0128
	(0.0510)	(0.0515)	(0.0395)	(0.0431)	(0.0427)	(0.0381)
Observations	1,547	1,547	1,547	1,547	1,547	1,547
R-squared	0.145	0.180	0.135	0.212	0.212	0.230

Note: ***P<0.001, **P<0.05, *P<0.10 Columns (1) to (6) report coefficients estimate of the interaction term, β_1, of equation 1 with robust standard errors in parenthesis for low-income (first panel) and high income (second panel) individuals. The outcome variable of equation 1, is the 5 questions about attitudes toward migration as well as the Index.

Table 7. Spill-over effects

[-45 days, 45]	Question 1	Question 2	Question 3	Question 4	Question 5	Index
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment * After	0.0520**	0.0260	0.0407**	0.0318	0.0250	0.0351**
	(0.0206)	(0.0220)	(0.0183)	(0.0196)	(0.0184)	(0.0159)
Border Country * After	0.0146	0.00604	-0.00122	-0.000928	0.0253*	0.00875
	(0.0190)	(0.0202)	(0.0156)	(0.0167)	(0.0149)	(0.0138)
Observations	9,163	9,163	9,163	9,163	9,163	9,163
R-squared	0.136	0.150	0.137	0.178	0.166	0.206
[-30 days, 30]	(1)	(2)	(3)	(4)	(5)	(6)
Treatment * After	0.0498	0.0275	0.0593**	0.0304	0.0312	0.0396
	(0.0329)	(0.0327)	(0.0283)	(0.0296)	(0.0273)	(0.0251)
Border Country * After	-0.0323	-0.0220	-0.0198	-0.0244	-0.00872	-0.0214
	(0.0250)	(0.0268)	(0.0216)	(0.0222)	(0.0201)	(0.0183)
Observations	4,854	4,854	4,854	4,854	4,854	4,854
R-squared	0.130	0.140	0.132	0.173	0.168	0.199
[-20 days, 20]	(1)	(2)	(3)	(4)	(5)	(6)
Treatment * After	0.0600	0.0249	0.0719**	0.0403	0.0531*	0.0500*
	(0.0368)	(0.0368)	(0.0308)	(0.0334)	(0.0312)	(0.0274)
Border Country * After	-0.0108	-0.0234	-0.00752	-0.0149	-0.00138	-0.0116
	(0.0329)	(0.0342)	(0.0274)	(0.0291)	(0.0261)	(0.0237)
Observations	2,700	2,700	2,700	2,700	2,700	2,700
R-squared	0.149	0.169	0.128	0.176	0.163	0.209

Note: ***P<0.001, **P<0.05, *P<0.10 Columns (1) to (6) report coefficients estimate of the interaction term, δ_1, and the interaction for border countries, δ_2 , of equation 3 with robust standard errors in parenthesis. The outcome variable of equation 1, is the 5 questions about attitudes toward migration as well as the Index.

Robustness check

In this section, to provide more evidence and credibility to my results, I run the same analysis but for the Charlie Hebdo terrorist attack. The Charlie Hebdo terrorist attack occurred on the 7th of January 2015 in Paris. Two Islamist extremists attacked the offices of a satirical weekly newspaper, killing 12 people and injuring 11. This incident ignited worldwide debates on free speech, migration policy, and religious tolerance, and led to significant security measures in France.

Therefore, by employing the same strategy specified before, and once again exploiting the fact that the tragic event occurred while the ESS interviews were being ruled out in France. Together with the fact that both the interview dates and the individuals chosen to interview were randomly selected. I can infer the causal effect that the Charlie Hebdo terrorist attack had on beliefs about migration and migrants. And then compare it with the coefficient that the main regression provided us for the Stockholm terrorist attack. For this regression, the dataset used is the *ESS round 7 - 2014. Immigration, Social inequalities in health* (ESS round 7).

It is important to refer that with this robustness check, I do not expect to find exactly the same results because the terrorist attacks were not similar, in casualties or motivation. Additionally, they happened in two different countries with different populations and values and during different times. However, this analysis does provide robustness, in the sense that it can show effects of a similar magnitude and in the same direction as the ones that the main analysis established.

Table 8 presents these results, once again in all different questions and the Index about beliefs toward migration the impact of the Charlie Hebdo terrorist attack was positive, meaning that beliefs about migration were influenced in a positive way. Comparing the coefficients of the Index between the Charlie Hebdo and the Stockholm terrorist attack, they both were significant for the full sample and the shorter one. These coefficients for the Stockholm bombing are 0.0346 and 0.0505, and for the Charlie Hebdo are 0.0460 and 0.0809. So, both are positive and increase in magnitude when there is a smaller time frame. The estimates regarding the France terrorist attack are larger, this might be the case since the attack was a lot bigger in magnitude, with more media exposure and casualties.

These results provide evidence for the main estimates of the strategy utilized. They are, of course, different in magnitude due to the differences between the attacks but they show a shift in the same direction.

Table 8. Robustness check – Charlie Hebdo DiD analysis

[-45 days, 45]	Question 1	Question 2	Question 3	Question 4	Question 5	Index
	(1)	(2)	(3)	(4)	(5)	(6)
France * After	0.0466*	0.0553*	0.0396*	0.0454*	0.0430*	0.0460**
	(0.0270)	(0.0285)	(0.0238)	(0.0266)	(0.0229)	(0.0212)
Observations	6,259	6,259	6,259	6,259	6,259	6,259
R-squared	0.159	0.129	0.176	0.157	0.117	0.194
[-30 days, 30]	(1)	(2)	(3)	(4)	(5)	(6)
France * After	0.0381	0.0483	0.0279	0.0459	0.0222	0.0365
	(0.0343)	(0.0356)	(0.0295)	(0.0333)	(0.0283)	(0.0268)
Observations	4,061	4,061	4,061	4,061	4,061	4,061
R-squared	0.166	0.134	0.177	0.175	0.129	0.202
[-20 days, 20]	(1)	(2)	(3)	(4)	(5)	(6)
France * After	0.0725	0.0819	0.0777*	0.119**	0.0535	0.0809**
	(0.0514)	(0.0515)	(0.0433)	(0.0512)	(0.0433)	(0.0403)
Observations	2,198	2,198	2,198	2,198	2,198	2,198
R-squared	0.217	0.172	0.201	0.214	0.156	0.252

Note: ***P<0.001, **P<0.05, *P<0.10 Columns (1) to (6) report coefficients estimate of the interaction term, β_1, of equation 1 with robust standard errors in parenthesis for the Charlie Hebdo terrorist attack. The outcome variable of equation 1, is the 5 questions about attitudes toward migration as well as the Index.

Discussion

The observed shift in attitudes towards migrants following the 2010 Stockholm bombings provides an intriguing insight into social dynamics and communal responses in Sweden. Notably, our results challenge traditional group threat theory, which posits that individuals often react to perceived threats from outgroups, such as migrants, with heightened prejudice and exclusionary attitudes (Quillian 1995). In stark contrast to this, we found that post-bombing attitudes towards migrants became more positive.

These results are not the most common in the literature and are therefore quite intriguing. Nevertheless, it is important to refer that the context does matter and can in part explain these results. Country and context-level characteristics that might change or attenuate the effect of such events include employment levels (Castanho Silva 2018; Legewie 2013), the current migration landscape (Castanho Silva 2018; Nussio, Bove, and Steele 2019), the proximity to the attack (Finseraas and Listhaug 2013; Nussio, Bove, and Steele 2019), the social norms of the country were the attack happened (Álvarez-Benjumea and Winter 2020) and how the event is communicated through the media and the government (Bruneau, Kteily, and Urbiola 2020; Gadarian 2010; von Sikorski et al. 2017). Additionally, the size of the event can also partake a role in how the event affected beliefs about migration.

Hence, one plausible explanation for these findings could be grounded in the contact theory. This theory suggests that meaningful interactions between different groups can lead to a reduction in prejudice and stereotypes (Pettigrew 1998). Consequently, this can change how individuals react in the aftermath of such a tragic event. In 2010, the migrant population in Sweden was about 14.3% of the total population[4]. Migrants in Sweden are often better integrated than in other countries, and the government actively seeks to further integrate them (Farchy and Liebig 2014 to see an overview of some of the laws passed by the Swedish government). This could potentially have facilitated a higher level of meaningful contact between the native population and migrants. Even in the face of a potentially divisive event, such as a bombing, the well-established intergroup contacts, and existing positive relationships as well as the lack of stereotypes, might have cushioned the blow, preventing a negative backlash against migrants.

Moreover, Sweden's sociopolitical climate during this time could have also played a crucial role in this positive shift. Sweden, at the time, had a strong anti-discrimination framework,

[4] In France, in 2015, the migrant population totalled 12.09% of the total population.

with for example in 2009 the introduction of a lot of penalties for perpetrators of discrimination (Farchy and Liebig 2014). Additionally, Swedish society is known for its high tolerance and inclusivity. Even prior to the bombing, the public sentiment towards migrants was more positive compared to other nations. Figure 7 shows how much more accepting is Sweden's society when compared with other European countries.

In the wake of the event, it is conceivable that the attack might have ignited a sense of collective identity and unity, causing people to rally around the flag[5]. This phenomenon, typically seen during times of national crisis or threat, could have superseded intergroup differences and resulted in an increased sense of belonging for all residents, including migrants. This hypothesis strengthens when we look at the heterogeneity analysis [6]for right-wing individuals. The effect was a lot more pronounced for these individuals. This might be due to the terrorist attack exacerbating the patriotic sentiment, that is more intense between right-wing individuals (Jugert and Duckitt 2009).

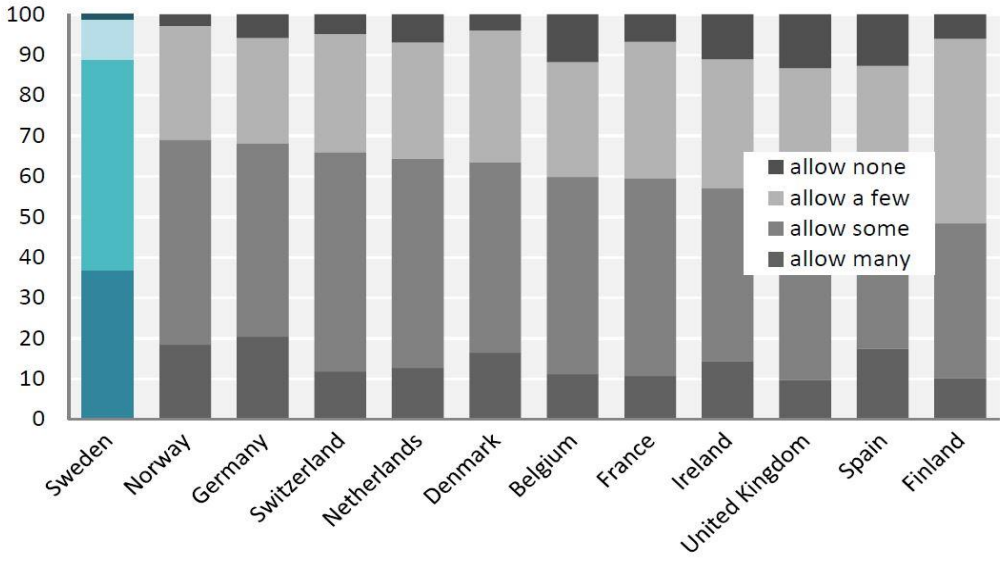

Figure 7. Views of the population regarding the number of migrants of a different race or ethnic group who should be allowed to come and live in the country, 2008-2012

Source: Farchy and Liebig (2014)

[5] Mueller (1973)
[6] All the heterogeneity analysis points in this direction not only the one related with the political view.

The rally round the flag effect may have also been strengthened by the fact that many migrants were already well-integrated into Swedish society. It's important to note that integration doesn't solely denote geographical or economic inclusion; rather, it extends to shared values, cultural understanding, and active participation in societal activities. This successful integration, combined with a collective crisis response, may have contributed to the positive shift in attitudes.

Another significant contributor to these results may be the role played by the media and the government in shaping public attitudes. Media and government narratives in the aftermath of a crisis are instrumental in directing public sentiment (Gadarian 2010; Boomgaarden and Vliengenthart 2009). In the case of the 2010 Stockholm bombings, both entities may have helped promote a narrative of unity and resilience, rather than divisiveness. Constructive and responsible media coverage can decrease the chances of scapegoating or creating false stereotypes, potentially guiding public opinion toward tolerance and acceptance. Moreover, the focus on stories that illustrate unity and commonality among citizens, regardless of their backgrounds, can reinforce positive attitudes and contribute to the 'rally-around-the-flag' phenomenon.

In conclusion, the positive shift in attitudes toward migrants after the Stockholm bombings indicates the nuanced nature of human social responses and the multifaceted influence of various factors. Such as the country and society context and how institutions respond in the aftermath of these tragic events.

Limitations

This research, while presenting valuable insights into the shifts in attitudes towards migrants in Sweden, also brings with it certain limitations that warrant further discussion and consideration for future studies.

The first and foremost limitation is related to the use of the DiD methodology. This method inherently assumes a parallel trend, a premise that, while argued in this research, cannot be rigorously tested, or completely verified. Even though this study provided some justification to support the parallel trend assumption, the untestable nature of the assumption may present a potential bias in the interpretation of the findings.

While no significant events simultaneous to the terrorist attack are identifiable, the existence of other unknown and unaccounted events that could have influenced public attitudes toward migrants cannot be entirely ruled out. These events, whether political, social, or economic, could potentially confound the results and render the parallel trends assumption invalid. However, despite these potential confounding factors, the body of evidence provided in this study does strongly suggest that the parallel trend assumption holds.

The quasi-experimental design employed in this study, made possible by the coincidental timing of the survey rollout and the terrorist attack, represents another potential source of limitations. While theoretically, individuals interviewed before and after the attack should be fully comparable, the study identified differences in age, income level, and, to a lesser extent, marital status. These disparities indicate a potential failure in the randomization process. To account for this, the main regression analysis includes all these variables as controls to mitigate any effects on the outcome.

Further limitations arise from the survey methodology itself. The outcome variables are derived from a face-to-face survey, a method prone to a certain degree of social desirability bias. There exists the potential for respondents' answers to reflect societal expectations and the desire to present themselves positively, rather than revealing their true feelings or beliefs.

Additionally, given that Sweden implemented an anti-discrimination act in 2009, this may have inadvertently created an environment where individuals might feel pressured to suppress their true opinions. This could further skew the reported attitudes towards migrants, making it challenging to gauge the depth and genuineness of the perceived shift in attitudes.

The survey's questions largely generalize attitudes towards migrants without distinguishing between various migrant groups. This lack of specificity obscures the ability to differentiate how attitudes might have shifted across diverse groups of migrants. And due to the nature of the terrorist attack, this might be an important avenue of research.

Lastly, while the robustness check shows somewhat similar effects for the Charlie Hebdo attack, the results can not be interpreted broadly, these effects can not be expected in every single terrorist attack. The external validity of the study is a concern, as I explained in the discussion this shift in attitudes depends on several contextual and country-level characteristics. Furthermore, the terrorist attack was of a small scale without any casualties, and therefore larger events can produce other effects. Nevertheless, it does provide some

interesting insight into how certain characteristics and behavior from institutions can have an important impact on how migrants are seen in the aftermath of a terrorist attack.

Taken together, these limitations, while not undermining the relevance and significance of the study, underline the need for caution when interpreting the results. They also offer important considerations for the design of future research, potentially inspiring more nuanced and accurate methods of investigating the intricate dynamics of societal attitudes toward migrants.

Conclusion

In conclusion, my thesis focuses on how beliefs about migration shifted in the aftermath of a terrorist event. Specifically, the case of the Stockholm terrorist attack and its subsequent influence on attitudes toward migration. By applying a DiD, which is an innovative approach to this topic, it is possible to capture the causal effect that the Stockholm terrorist attack had on attitudes toward migrants.

The analysis reveals that contrary to general assumptions, these attitudes can shift in a more positive direction following a traumatic event, at least within the socio-cultural context of Sweden. This study underscores the potential of integration and cohesive union inside a country, which in times of adversity can fight prejudice toward out-groups.

Additionally, one further explanation for the results obtained is the way that both governments and media respond to these events. Moreover, which narrative they pass to society is also important. At the time the Swedish government was known for their liberal migrant policy, and therefore it is expected that they did not generalize or exacerbate any kind of prejudice toward migrants.

The results obtained are valuable for policymakers. They show how a strong pursuit of integration together with a responsible response from the government and other institutions, can mitigate, and even impact positively how migrants are viewed in the aftermath of a terrorist attack. Therefore, not creating more marginalization but a more cohesive society that can revert the tragic consequences of such an event.

However, the multifaceted nature of attitudes toward migration should be considered. It should be acknowledged that attributing such shifts solely to the incident may oversimplify the complex dynamics at play. In essence, this research contributes to the literature about the effects of terrorist attacks, specifically on attitudes toward migrant communities. These results

emphasize the importance of the political and social context and how this influences the way that society perceives migrants and minorities in the aftermath of a terrorist attack. Future research should dive into the rally round the flag effect in this context, and how media and government had a role in shaping attitudes toward migration.

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Appendix

Appendix A – Trend Analysis

Appendix A1 - Allow many/few immigrants of different race/ethnic group from the majority (Trend Analysis)

[-45 days, 0]	(1)	(2)	(3)	(4)
Treatment * Days since attack	-0.000610	-0.000593	-0.00156	-0.000547
	(0.000940)	(0.000936)	(0.00104)	(0.000954)
Observations	5,531	5,531	1,249	4,788
R-squared	0.165	0.162	0.184	0.168
[-30 days, 0]	(1)	(2)	(3)	(4)
Treatment * Days since attack	-0.00167	-0.00180	-0.000770	-0.00175
	(0.00168)	(0.00169)	(0.00193)	(0.00170)
Observations	3,143	3,143	758	2,714
R-squared	0.147	0.143	0.173	0.149
[-20 days, 0]	(1)	(2)	(3)	(4)
Treatment * Days since attack	-0.00228	-0.00294	-0.00487	-0.00203
	(0.00333)	(0.00330)	(0.00352)	(0.00340)
Observations	1,781	1,781	476	1,495
R-squared	0.147	0.142	0.186	0.152

Note: ***P<0.001, **P<0.05, *P<0.10 Columns (1) to (4) report coefficients estimate of the interaction term, α_1, of equation 2 with robust standard errors in parenthesis. The outcome variable is Question 1. Column (1) includes individual controls, country fixed effects and week fixed effects. Column (2) does not include week fixed effects. Column (3) only has the bordering countries as the control group. Column (4) does not have the bordering countries in the control group.

Appendix A2 - Allow many/few immigrants from poorer countries outside Europe (Trend Analysis)

[-45 days, 0]	(1)	(2)	(3)	(4)
Treatment * Days since attack	-0.000201	-0.000123	-0.00103	-0.000156
	(0.000969)	(0.000963)	(0.00110)	(0.000982)
Observations	5,531	5,531	1,249	4,788
R-squared	0.177	0.175	0.216	0.182
[-30 days, 0]	(1)	(2)	(3)	(4)
Treatment * Days since attack	-0.00114	-0.00119	-0.00119	-0.00119
	(0.00178)	(0.00177)	(0.00211)	(0.00180)
Observations	3,143	3,143	758	2,714
R-squared	0.162	0.160	0.215	0.166
[-20 days, 0]	(1)	(2)	(3)	(4)
Treatment * Days since attack	-0.00390	-0.00400	-0.00509	-0.00375
	(0.00349)	(0.00344)	(0.00387)	(0.00356)
Observations	1,781	1,781	476	1,495
R-squared	0.159	0.156	0.226	0.166

Note: ***P<0.001, **P<0.05, *P<0.10 Columns (1) to (4) report coefficients estimate of the interaction term, α_1, of equation 2 with robust standard errors in parenthesis. The outcome variable is Question 2. Column (1) includes individual controls, country fixed effects and week fixed effects. Column (2) does not include week fixed effects. Column (3) only has the bordering countries as the control group. Column (4) does not have the bordering countries in the control group.

Appendix A3 - Immigration bad or good for the country's economy

(Trend Analysis)

[-45 days, 0]	(1)	(2)	(3)	(4)
Treatment * Days Since attack	-0.000555	-0.000623	-9.56e-05	-0.000578
	(0.000850)	(0.000843)	(0.000931)	(0.000859)
Observations	5,531	5,531	1,249	4,788
R-squared	0.144	0.140	0.114	0.144
[-30 days, 0]	(1)	(2)	(3)	(4)
Treatment * Days since attack	-0.000432	-0.000783	0.00107	-0.000502
	(0.00160)	(0.00160)	(0.00186)	(0.00162)
Observations	3,143	3,143	758	2,714
R-squared	0.139	0.134	0.113	0.139
[-20 days, 0]	(1)	(2)	(3)	(4)
Treatment * Days since attack	-0.000215	-0.00106	0.00425	-0.000394
	(0.00318)	(0.00318)	(0.00349)	(0.00322)
Observations	1,781	1,781	476	1,495
R-squared	0.139	0.131	0.121	0.140

Note: ***P<0.001, **P<0.05, *P<0.10 Columns (1) to (4) report coefficients estimate of the interaction term, α_1, of equation 2 with robust standard errors in parenthesis. The outcome variable is Question 3. Column (1) includes individual controls, country fixed effects and week fixed effects. Column (2) does not include week fixed effects. Column (3) only has the bordering countries as the control group. Column (4) does not have the bordering countries in the control group.

Appendix A4 - Country's cultural life undermined or enriched by immigrants

(Trend Analysis)

[-45 days, 0]	(1)	(2)	(3)	(4)
Treatment * Days since attack	-0.000139	-0.000162	-0.000443	-0.000118
	(0.000945)	(0.000934)	(0.00102)	(0.000956)
Observations	5,531	5,531	1,249	4,788
R-squared	0.160	0.156	0.190	0.161
[-30 days, 0]	(1)	(2)	(3)	(4)
Treatment * Days since attack	-0.000702	-0.00105	-0.000886	-0.000678
	(0.00171)	(0.00169)	(0.00190)	(0.00173)
Observations	3,143	3,143	758	2,714
R-squared	0.174	0.170	0.189	0.175
[-20 days, 0]	(1)	(2)	(3)	(4)
Treatment * Days since attack	-0.00248	-0.00327	-0.00562	-0.00219
	(0.00353)	(0.00350)	(0.00371)	(0.00358)
Observations	1,781	1,781	476	1,495
R-squared	0.195	0.188	0.181	0.198

Note: ***P<0.001, **P<0.05, *P<0.10 Columns (1) to (4) report coefficients estimate of the interaction term, α_1, of equation 2 with robust standard errors in parenthesis. The outcome variable is Question 4. Column (1) includes individual controls, country fixed effects and week fixed effects. Column (2) does not include week fixed effects. Column (3) only has the bordering countries as the control group. Column (4) does not have the bordering countries in the control group.

Appendix A5 - Immigrants make the country a worse or better place to live

(Trend Analysis)

[-45 days, 0]	(1)	(2)	(3)	(4)
Treatment * Days since attack	-0.000375	-0.000418	-0.000729	-0.000352
	(0.000887)	(0.000875)	(0.000964)	(0.000895)
Observations	5,531	5,531	1,249	4,788
R-squared	0.159	0.155	0.163	0.159
[-30 days, 0]	(1)	(2)	(3)	(4)
Treatment * Days since attack	-0.00164	-0.00199	-0.000763	-0.00167
	(0.00167)	(0.00164)	(0.00190)	(0.00169)
Observations	3,143	3,143	758	2,714
R-squared	0.164	0.159	0.156	0.162
[-20 days, 0]	(1)	(2)	(3)	(4)
Treatment * Days since attack	-0.000896	-0.00149	-0.000474	-0.000845
	(0.00353)	(0.00347)	(0.00372)	(0.00358)
Observations	1,781	1,781	476	1,495
R-squared	0.158	0.152	0.140	0.156

Note: ***P<0.001, **P<0.05, *P<0.10 Columns (1) to (4) report coefficients estimate of the interaction term, α_1, of equation 2 with robust standard errors in parenthesis. The outcome variable is Question 5. Column (1) includes individual controls, country fixed effects and week fixed effects. Column (2) does not include week fixed effects. Column (3) only has the bordering countries as the control group. Column (4) does not have the bordering countries in the control group.

Appendix A6 – Index of beliefs about migration

(Trend Analysis)

[-45 days, 0]	(1)	(2)	(3)	(4)
Treatment * Days since attack	-0.000376	-0.000384	-0.000771	-0.000350
	(0.000746)	(0.000740)	(0.000820)	(0.000755)
Observations	5,531	5,531	1,249	4,788
R-squared	0.217	0.213	0.230	0.220
[-30 days, 0]	(1)	(2)	(3)	(4)
Treatment * Days since attack	-0.00112	-0.00136	-0.000508	-0.00116
	(0.00137)	(0.00136)	(0.00157)	(0.00139)
Observations	3,143	3,143	758	2,714
R-squared	0.207	0.203	0.222	0.209
[-20 days, 0]	(1)	(2)	(3)	(4)
Treatment * Days since attack	-0.00195	-0.00255	-0.00236	-0.00184
	(0.00278)	(0.00275)	(0.00293)	(0.00282)
Observations	1,781	1,781	476	1,495
R-squared	0.210	0.204	0.219	0.214

Note: ***P<0.001, **P<0.05, *P<0.10 Columns (1) to (4) report coefficients estimate of the interaction term, α_1, of equation 2 with robust standard errors in parenthesis. The outcome variable is the Index. Column (1) includes individual controls, country fixed effects and week fixed effects. Column (2) does not include week fixed effects. Column (3) only has the bordering countries as the control group. Column (4) does not have the bordering countries in the control group.

Appendix B – Imbalance analysis (Logistic regression)

[-45 days, 45]	After
Years of education	-0.00197
	(0.00645)
% of female	-0.0142
	(0.0430)
Age of individuals	0.00674***
	(0.00182)
Marital status	0.0151
	(0.0109)
Income level	-0.0136
	(0.00849)
Constant	-0.648***
	(0.146)
Observations	9,163
[-30 days, 30]	After
Years of education	-0.0118
	(0.00930)
% of female	-0.0243
	(0.0607)
Age of individuals	0.00202
	(0.00257)
Marital status	-0.00379
	(0.0153)
Income level	-0.0291**
	(0.0118)
Constant	-0.344*
	(0.208)
Observations	4,854
[-20 days, 20]	After
Years of education	-0.00729
	(0.0126)
% of female	-0.0429
	(0.0820)
Age of individuals	0.000141
	(0.00349)
Marital status	-0.00462
	(0.0209)
Income level	-0.0171
	(0.0161)
Constant	-0.433
	(0.281)
Observations	2,700

Note: ***P<0.001, **P<0.05, *P<0.10

Appendix C – Main DiD analysis with clustered standard errors at the country level

[-45 days, 45]	Question 1	Question 2	Question 3	Question 4	Question 5	Index
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment * After	0.0512***	0.0257**	0.0408***	0.0318***	0.0236***	0.0346***
	(0.0102)	(0.0100)	(0.00588)	(0.00678)	(0.00420)	(0.00474)
Observations	9,163	9,163	9,163	9,163	9,163	9,163
R-squared	0.136	0.150	0.137	0.178	0.166	0.206
[-30 days, 30]	(1)	(2)	(3)	(4)	(5)	(6)
Treatment * After	0.0512***	0.0284**	0.0602***	0.0314***	0.0315***	0.0405***
	(0.0111)	(0.00997)	(0.00390)	(0.00411)	(0.00978)	(0.00436)
Observations	4,854	4,854	4,854	4,854	4,854	4,854
R-squared	0.129	0.140	0.132	0.173	0.167	0.199
[-20 days, 20]	(1)	(2)	(3)	(4)	(5)	(6)
Treatment * After	0.0605***	0.0258***	0.0722***	0.0409***	0.0531***	0.0505***
	(0.0200)	(0.00613)	(0.00356)	(0.00408)	(0.00762)	(0.00514)
Observations	2,700	2,700	2,700	2,700	2,700	2,700
R-squared	0.149	0.169	0.128	0.176	0.163	0.209

Note: ***P<0.001, **P<0.05, *P<0.10 Columns (1) to (6) report coefficients estimate of the interaction term, β_1, of equation 1 with clustered standard errors at the country level in parenthesis. The outcome variable of equation 1, are the 5 questions about attitudes toward migration as well as the Index.

Appendix D – Main DiD analysis – different specification

Appendix D1 - Allow many/few immigrants of different race/ethnic group from the majority (Different Specifications)

[-45 days, 45]	(1)	(2)	(3)
Treatment * After	0.0547***	0.0249	0.0524**
	(0.0203)	(0.0232)	(0.0206)
Observations	10,177	1,919	7,969
R-squared	0.083	0.179	0.138
[-30 days, 30]	(1)	(2)	(3)
Treatment * After	0.0676**	0.0663*	0.0495
	(0.0318)	(0.0382)	(0.0330)
Observations	5,317	1,043	4,215
R-squared	0.062	0.187	0.131
[-20 days, 20]	(1)	(2)	(3)
Treatment * After	0.0712**	0.0633	0.0598
	(0.0354)	(0.0422)	(0.0369)
Observations	2,973	656	2,298
R-squared	0.067	0.188	0.153

Note: ***P<0.001, **P<0.05, *P<0.10 Columns (1) to (3) report coefficients estimate of the interaction term, β_1, of equation 1 with robust standard errors in parenthesis. The outcome variable is Question 1. The regression of column (1) has no individual controls and week fixed effects. Column (2) only has the bordering countries in the control group. Column (3) does not have the bordering countries in the control group.

Appendix D2 - Allow many/few immigrants from poorer countries outside Europe (Different Specifications)

[-45 days, 45]	(1)	(2)	(3)
Treatment * After	0.0339	0.0108	0.0262
	(0.0217)	(0.0249)	(0.0221)
Observations	10,177	1,919	7,969
R-squared	0.105	0.210	0.153
[-30 days, 30]	(1)	(2)	(3)
Treatment * After	0.0424	0.0385	0.0269
	(0.0321)	(0.0386)	(0.0328)
Observations	5,317	1,043	4,215
R-squared	0.087	0.235	0.142
[-20 days, 20]	(1)	(2)	(3)
Treatment * After	0.0444	0.0529	0.0241
	(0.0360)	(0.0430)	(0.0369)
Observations	2,973	656	2,298
R-squared	0.106	0.242	0.174

Note: ***P<0.001, **P<0.05, *P<0.10 Columns (1) to (3) report coefficients estimate of the interaction term, β_1, of equation 1 with robust standard errors in parenthesis. The outcome variable is Question 2. The regression of column (1) has no individual controls and week fixed effects. Column (2) only has the bordering countries in the control group. Column (3) does not have the bordering countries in the control group.

Appendix D3 - Immigration bad or good for the country's economy

(Different specifications)

[-45 days, 45]	(1)	(2)	(3)
Treatment * After	0.0391**	0.0333	0.0406**
	(0.0188)	(0.0203)	(0.0184)
Observations	10,177	1,919	7,969
R-squared	0.070	0.124	0.137
[-30 days, 30]	(1)	(2)	(3)
Treatment * After	0.0799***	0.0700**	0.0593**
	(0.0289)	(0.0331)	(0.0283)
Observations	5,317	1,043	4,215
R-squared	0.058	0.133	0.132
[-20 days, 20]	(1)	(2)	(3)
Treatment * After	0.0935***	0.0773**	0.0406**
	(0.0322)	(0.0360)	(0.0184)
Observations	2,973	656	7,969
R-squared	0.047	0.140	0.137

Note: ***P<0.001, **P<0.05, *P<0.10 Columns (1) to (3) report coefficients estimate of the interaction term, β_1, of equation 1 with robust standard errors in parenthesis. The outcome variable is Question 3. The regression of column (1) has no individual controls and week fixed effects. Column (2) only has the bordering countries in the control group. Column (3) does not have the bordering countries in the control group.

Appendix D4 - Country's cultural life undermined or enriched by immigrants

(Different Specifications)

[-45 days, 45]	(1)	(2)	(3)
Treatment * After	0.0294	0.0254	0.0320
	(0.0197)	(0.0214)	(0.0196)
Observations	10,177	1,919	7,969
R-squared	0.118	0.177	0.179
[-30 days, 30]	(1)	(2)	(3)
Treatment * After	0.0492*	0.0501	0.0301
	(0.0291)	(0.0332)	(0.0296)
Observations	5,317	1,043	4,215
R-squared	0.092	0.200	0.173
[-20 days, 20]	(1)	(2)	(3)
Treatment * After	0.0597*	0.0529	0.0401
	(0.0332)	(0.0371)	(0.0335)
Observations	2,973	656	2,298
R-squared	0.081	0.191	0.178

Note: ***P<0.001, **P<0.05, *P<0.10 Columns (1) to (3) report coefficients estimate of the interaction term, β_1, of equation 1 with robust standard errors in parenthesis. The outcome variable is Question 4. The regression of column (1) has no individual controls and week fixed effects. Column (2) only has the bordering countries in the control group. Column (3) does not have the bordering countries in the control group.

Appendix D5 - Immigrants make the country a worse or better place to live

(Different Specifications)

[-45 days, 45]	(1)	(2)	(3)
Treatment * After	0.0236	-0.00518	0.0252
	(0.0185)	(0.0203)	(0.0184)
Observations	10,177	1,919	7,969
R-squared	0.120	0.154	0.163
[-30 days, 30]	(1)	(2)	(3)
Treatment * After	0.0450*	0.0387	0.0311
	(0.0272)	(0.0316)	(0.0274)
Observations	5,317	1,043	4,215
R-squared	0.110	0.162	0.164
[-20 days, 20]	(1)	(2)	(3)
Treatment * After	0.0641**	0.0619*	0.0527*
	(0.0311)	(0.0360)	(0.0313)
Observations	2,973	656	2,298
R-squared	0.093	0.150	0.160

Note: ***P<0.001, **P<0.05, *P<0.10 Columns (1) to (3) report coefficients estimate of the interaction term, β_1, of equation 1 with robust standard errors in parenthesis. The outcome variable is Question 5. The regression of column (1) has no individual controls and week fixed effects. Column (2) only has the bordering countries in the control group. Column (3) does not have the bordering countries in the control group.

Appendix D6 - Index of beliefs about migration

(Different Specifications)

[-45 days, 45]	(1)	(2)	(3)
Treatment * After	0.0361**	0.0178	0.0353**
	(0.0163)	(0.0179)	(0.0159)
Observations	10,177	1,919	7,969
R-squared	0.131	0.223	0.207
[-30 days, 30]	(1)	(2)	(3)
Treatment * After	0.0568**	0.0527*	0.0394
	(0.0252)	(0.0292)	(0.0252)
Observations	5,317	1,043	4,215
R-squared	0.108	0.240	0.200
[-20 days, 20]	(1)	(2)	(3)
Treatment * After	0.0666**	0.0617**	0.0496*
	(0.0277)	(0.0312)	(0.0275)
Observations	2,973	656	2,298
R-squared	0.103	0.238	0.212

Note: ***P<0.001, **P<0.05, *P<0.10 Columns (1) to (3) report coefficients estimate of the interaction term, β_1, of equation 1 with robust standard errors in parenthesis. The outcome variable is the Index. The regression of column (1) has no individual controls and week fixed effects. Column (2) only has the bordering countries in the control group. Column (3) does not have the bordering countries in the control group.

Appendix E – Heterogeneity Analysis

Appendix E1 – Heterogeneity Analysis (Age)

Old	Question 1	Question 2	Question 3	Question 4	Question 5	Index
[-45 days, 45]	(1)	(2)	(3)	(4)	(5)	(6)
Treatment * After	0.0349	0.0136	0.0331	0.0299	0.0189	0.0261
	(0.0293)	(0.0326)	(0.0255)	(0.0269)	(0.0255)	(0.0228)
Observations	4,576	4,576	4,576	4,576	4,576	4,576
R-squared	0.164	0.181	0.193	0.209	0.201	0.253
[-30 days, 30]	(1)	(2)	(3)	(4)	(5)	(6)
Treatment * After	0.0503	0.0308	0.0629	0.0821**	0.0595	0.0571
	(0.0523)	(0.0519)	(0.0443)	(0.0418)	(0.0405)	(0.0391)
Observations	2,412	2,412	2,412	2,412	2,412	2,412
R-squared	0.165	0.181	0.182	0.214	0.193	0.246
[-20 days, 20]	(1)	(2)	(3)	(4)	(5)	(6)
Treatment * After	0.0126	-0.0164	0.0484	0.0751	0.0813	0.0402
	(0.0628)	(0.0623)	(0.0514)	(0.0506)	(0.0501)	(0.0474)
Observations	1,342	1,342	1,342	1,342	1,342	1,342
R-squared	0.210	0.226	0.167	0.227	0.209	0.271
Young	Question 1	Question 2	Question 3	Question 4	Question 5	Index
[-45 days, 45]	(1)	(2)	(3)	(4)	(5)	(6)
Treatment * After	0.0691**	0.0410	0.0496*	0.0321	0.0283	0.0440**
	(0.0290)	(0.0294)	(0.0258)	(0.0277)	(0.0259)	(0.0220)
Observations	4,587	4,587	4,587	4,587	4,587	4,587
R-squared	0.122	0.128	0.106	0.162	0.147	0.174
[-30 days, 30]	(1)	(2)	(3)	(4)	(5)	(6)
Treatment * After	0.0493	0.0262	0.0481	-0.0123	0.00611	0.0235
	(0.0444)	(0.0429)	(0.0376)	(0.0409)	(0.0369)	(0.0335)
Observations	2,442	2,442	2,442	2,442	2,442	2,442
R-squared	0.103	0.113	0.109	0.143	0.159	0.162
[-20 days, 20]	(1)	(2)	(3)	(4)	(5)	(6)
Treatment * After	0.107**	0.0686	0.0820**	0.0159	0.0291	0.0606*
	(0.0476)	(0.0460)	(0.0389)	(0.0442)	(0.0403)	(0.0339)
Observations	1,358	1,358	1,358	1,358	1,358	1,358
R-squared	0.112	0.125	0.109	0.137	0.130	0.156

Note: ***P<0.001, **P<0.05, *P<0.10 Columns (1) to (6) report coefficients estimate of the interaction term, β_1, of equation 1 with robust standard errors in parenthesis for old (first panel) and young (second panel) individuals. The outcome variable of equation 1, is the 5 questions about attitudes toward migration as well as the Index.

Appendix E2 – Heterogeneity Analysis (Gender)

Female	Question 1	Question 2	Question 3	Question 4	Question 5	Index
[-45 days, 45]	(1)	(2)	(3)	(4)	(5)	(6)
Treatment * After	0.0466*	0.0105	0.0417*	0.0339	0.0330	0.0331
	(0.0275)	(0.0299)	(0.0251)	(0.0268)	(0.0240)	(0.0209)
Observations	4,742	4,742	4,742	4,742	4,742	4,742
R-squared	0.147	0.177	0.126	0.201	0.170	0.221
[-30 days, 30]	(1)	(2)	(3)	(4)	(5)	(6)
Treatment * After	-0.000286	-0.0370	0.0368	0.0208	0.0133	0.00671
	(0.0430)	(0.0422)	(0.0377)	(0.0388)	(0.0341)	(0.0315)
Observations	2,502	2,502	2,502	2,502	2,502	2,502
R-squared	0.148	0.181	0.110	0.181	0.159	0.205
[-20 days, 20]	(1)	(2)	(3)	(4)	(5)	(6)
Treatment * After	-0.0243	-0.0670	0.0497	0.0194	0.0261	0.000786
	(0.0481)	(0.0465)	(0.0442)	(0.0459)	(0.0405)	(0.0364)
Observations	1,353	1,353	1,353	1,353	1,353	1,353
R-squared	0.171	0.215	0.124	0.190	0.153	0.221
Male	Question 1	Question 2	Question 3	Question 4	Question 5	Index
[-45 days, 45]	(1)	(2)	(3)	(4)	(5)	(6)
Treatment * After	0.0518*	0.0417	0.0412	0.0280	0.0134	0.0352
	(0.0302)	(0.0322)	(0.0259)	(0.0279)	(0.0275)	(0.0236)
Observations	4,421	4,421	4,421	4,421	4,421	4,421
R-squared	0.138	0.142	0.156	0.168	0.176	0.204
[-30 days, 30]	(1)	(2)	(3)	(4)	(5)	(6)
Treatment * After	0.0932*	0.0860*	0.0828**	0.0372	0.0492	0.0697*
	(0.0511)	(0.0502)	(0.0416)	(0.0443)	(0.0438)	(0.0396)
Observations	2,352	2,352	2,352	2,352	2,352	2,352
R-squared	0.140	0.132	0.167	0.178	0.195	0.214
[-20 days, 20]	(1)	(2)	(3)	(4)	(5)	(6)
Treatment * After	0.138**	0.127**	0.101**	0.0719	0.0842*	0.104**
	(0.0548)	(0.0556)	(0.0417)	(0.0474)	(0.0489)	(0.0407)
Observations	1,347	1,347	1,347	1,347	1,347	1,347
R-squared	0.169	0.157	0.161	0.194	0.215	0.235

Note: ***P<0.001, **P<0.05, *P<0.10 Columns (1) to (6) report coefficients estimate of the interaction term, β_1, of equation 1 with robust standard errors in parenthesis for female (first panel) and male (second panel) individuals. The outcome variable of equation 1, is the 5 questions about attitudes toward migration as well as the Index.