

How migration policies moderate the diffusion of terrorism*

TOBIAS BÖHMELT¹ & VINCENZO BOVE²

¹*Department of Government, University of Essex, Colchester, United Kingdom;*

²*Department of Politics and International Studies, University of Warwick, Coventry, United Kingdom*

Abstract. There is an ongoing debate among practitioners and scholars about the security consequences of transnational migration. Yet, existing work has not yet fully taken into account the policy instruments states have at their disposal to mitigate these risks, and we lack reliable evidence for the effectiveness of such measures. The following research addresses both shortcomings as we analyze whether and to what extent national migration policies affect the diffusion of terrorism via population movements. Spatial analyses report robust support for a moderating influence of states' policies: while terrorism can travel from one country to another via larger migration populations, this only applies to target countries with extremely lax regulations and control mechanisms. This research sheds new light on the security implications of population movements, and it crucially adds to our understanding of governments' instruments for addressing migration challenges as well as their effectiveness.

Keywords: terrorism; diffusion; immigration; national migration policies

*We thank the journal's editors, Emiliano Grossman and Sofia Vasilopoulou, as well as the anonymous reviewers for their constructive feedback.

Replication Materials: The data, code, and any additional materials required to replicate all analyses in this article are available on the *European Journal of Political Research* Dataverse within the Harvard Dataverse Network.

Introduction

The size of transnational migration has risen significantly worldwide over the last two decades. The United Nations Population Division (UN DESA 2015) suggests that the global population of international migrants, i.e., people residing in a country other than their country of birth, has more than doubled since the year 2000 to about 244 million by 2015. Permanently moving to another country offers valuable opportunities and gains for both migrants and their host societies (Dustmann & Frattini 2014; Hainmueller et al. 2017; Zanfrini 2016). However, several challenges may be emerging when managing and hosting larger populations of foreign-born individuals. Especially relevant to this research, there is a considerable body of work suggesting that population movements may have security implications for receiving countries (e.g., Algan et al. 2012; Bloemraad et al. 2008; Hainmueller et al. 2017). Given the increasing interconnectedness among states in the international system, the size and scope of global migration at the present time, and the complexity of state responses to address the challenges stemming from population movements, migration is now one of the most salient political issues worldwide, although our understanding of its impact is far more limited than ever before (see e.g., Constant & Zimmermann 2013; Dustmann 2015 for recent overviews).

Most governments have long integrated migration laws and border controls into national security frameworks, and there is a growing number of studies on the relationship between migration and security (see Adamson 2006; Dowty & Loescher 1996; Milton et al. 2013; Salehyan & Gleditsch 2006). Transnational population movements can directly or indirectly lead to social unrest, potentially affect the ethnic composition of host nations, and may thereby induce challenges for internal security (Dowty & Loescher 1996). At the same time, there are likely external security challenges as migration flows might influence the state's ability to keep control over its territory, whereas political movements abroad can strategically leverage migration networks as a resource for transnational action (Adamson 2006). We also know that conflict travels across borders and large population movements facilitate its diffusion from one state to another (Buhaug & Gleditsch 2008; Salehyan & Gleditsch 2006). Consider in particular Bove & Böhmelt (2016) who find that the degree of terrorism 'at home' increases with migrants from countries with a high level of terrorism. In other words, migration can be a vehicle for terrorism to diffuse across nations. In the following article, we examine whether such diffusion of terrorism may be mitigated or exacerbated through states' national immigration policies. To this end, we contribute in important ways to the previous work by providing empirical answers to two unresolved questions: how can national policy instruments affect the diffusion of terrorism via migration flows? And are these policies effective?

Migration policies are defined as a 'government's statements of what it intends to do or not do (including laws, regulations, decisions or orders) in regard to the selection, admission, settlement and deportation of foreign citizens residing in the country' (Helbling et al. 2017, 4; see also Andreas 2003). Two somewhat competing theoretical mechanisms linking domestic migration controls and regulations to the diffusion of terrorism can be identified. If domestic migration laws ease the admission, settlement, and mobility of foreign citizens residing in a country, political and economic integration into host societies may be facilitated; this makes it less likely that radicalization is fueled and more difficult for terrorist organizations to exploit migrant communities as a recruitment pool. In turn, this implies that receiving states could experience lower levels of terrorism as terrorism is less likely to diffuse via migrants. Conversely, stricter regulations and more rigorous control mechanisms at the border as well as within a country could allow the government to monitor more closely and exert greater control over specific segments of the population, including migrants. Therefore, more stringent regulations may well be effective in suppressing the diffusion of terrorism and decreasing the level of terrorism at home. By theoretically elaborating on these mechanisms and empirically

evaluating their validity, we contribute to the ongoing debate among practitioners and scholars about the security implications of transnational migration; this is particularly important as previous work has neither fully taken into account the policy instruments states have at their disposal to address cross-border population movements and their impact, nor has the effectiveness of such measures systematically been assessed. In fact, it remains less well understood which effect, for example, immigration restrictions have on the risk of terrorism (Dreher et al. 2017, 7). We overcome existing shortcomings by analyzing whether and to what extent state policies on migration affect the diffusion of terrorism via transnational migration.

Rigorously evaluating how national migration policies moderate terrorism diffusion is key for furthering our knowledge of which of the two theoretical mechanisms apply, and our research hence informs ongoing debates about what policies should be designed and which ones ought to be implemented. Until now, ‘policy makers are struggling with the design of policies to facilitate integration and ease social tensions, but we know distressingly little about the impacts of these policies’ (Hainmueller et al. 2017, 256). We provide a new and comprehensive empirical analysis that is based on spatial econometrics and employs recently released data from the Immigration Policies in Comparison (IMPIC) project to capture immigration policies in OECD countries between 1980 and 2010 (Helbling et al. 2017; Helbling & Leblang 2019). We directly consider the influence of states’ policy instruments and assess their effectiveness. While earlier work (e.g., Bandyopadhyay & Sandler 2014; Enders & Sandler 1993) has approached the relationship between immigration quotas and counterterrorism efforts, this largely occurred at a more theoretical level and we lack systematic empirical evidence for the effectiveness or impotence of such policies.¹ Another contribution of our research is explicitly formulating and testing the conditions under which the diffusion of terrorism emerges. Neumayer & Plümper (2012, 820) highlight that ‘almost no empirical studies explicitly test for heterogeneity among recipients of spatial effects’. We show that the diffusion of terrorism – and the diffusion of violence more broadly – is likely to be conditional. Immigration policies mediate the security impact of migration flows and can mitigate their negative externalities. Failing to take into account relevant forms of heterogeneity in spatial models ‘can lead to wrong inferences with respect to spatial dependence’ (Neumayer & Plümper 2012, 839). Our study is a critical step in this direction.

Ultimately, we shed new light on the security implications of transnational population movements, and this research significantly adds to the understanding of governments’ instruments for addressing immigration challenges as well as their effectiveness. While migration populations can be associated with an increased risk of terrorism ‘at home’, this effect is only visible for what can be called more terror-prone sending countries and it does not apply to the clear majority of transnational migration flows. That said, we show that there is also a lot governments can do to address the challenges stemming from migration populations. Common fears of widespread terrorism due to or via migration flows are less likely to be borne out if the state implements the right policies. We do find evidence that more restrictive immigration policies can contain and dampen the diffusion of terrorism; yet, we also highlight that more restrictive regulations and controls can have the opposite effect if migration populations are small and/or if they stem from countries with low levels of terrorism. Unjustified and excessive restrictions to immigrants’ rights and migration inflows do not seem to be a default solution that is suitable for most countries, at all times, or for all immigration-induced security challenges. Considering this, our research will assist policymakers and public responses to develop more adequate policies to the challenges and opportunities of immigration at the present time and in the future.

Migration policies, population movements and the diffusion of terrorism

Immigration usually offers significant benefits for host countries and migrants (Bove & Elia 2017; Ottaviano & Peri 2006). Economic growth, added skills to labor markets, increased personal wealth, or an improvement of human capital are just a few of those ‘positive externalities’ associated with migration inflows. However, immigration is also a contentious issue as large movements of people across national borders can lead to a variety of economic and social challenges, in particular in destination countries. The underlying issue that we focus on in this article is whether population movements can affect terrorism diffusion, i.e., that populations of foreign-born individuals facilitate as a vehicle that terrorism travels from one state to another. The literature has extensively dealt with institutional and economic causes of terrorism (Enders & Sandler 2006; Gaibulloev et al. 2017; Krieger & Meierrieks 2011; Li 2005; Wilson & Piazza 2013) and the impact terrorism might have (Abadie & Gardeazabal 2003; Gaibulloev & Sandler 2008; Young & Findley 2011). However, the works most closely related to ours are those on the spatial dimension of terrorism and those on how regime type, specific institutions, or policies help predict terrorism (Aksoy et al. 2012; Findley & Young 2012; Gaibulloev et al. 2017; Nemeth et al. 2014; Neumayer & Plümer 2010; Wilson & Piazza 2013). On one hand, Braithwaite & Li (2007) identify ‘hot spots’ of terrorist attacks and quantify the impact of these neighborhoods on countries’ exposure to terrorism. Nemeth et al. (2014) explore the social, economic, and geographic characteristics that are more likely to be associated with domestic terrorism and its clustering in space. On the other hand, Aksoy et al. (2012) argue that legislatures in authoritarian regimes can give opposition groups an opportunity to express grievances and shape policies, thus reducing the chances of anti-government groups to turn to terrorism. Wilson & Piazza (2013) find that, compared to those regimes tied by civil liberties or the lack of civil administration, single-party regimes have fewer terrorist incidents given their richer toolkit of repression and co-optation strategies.

We move beyond the debate on whether regime type or the presence of particular institutions can explain the root causes of terrorism by exploring how the policies that regulate a nation’s immigration system, from immigrant-selection mechanisms to immigrant integration programs and border controls, matter for the degree of terrorism diffusion. At the same time, our study is beyond mere spatial clustering or purely geographic ties between spatial units. We focus on a *genuine* diffusion effect as we consider population movements as a vehicle for terrorism to diffuse from one state to another. But although we suspect that terrorism is spatially dependent and, hence, larger migration populations work as a direct cross-national diffusion path (Bove & Böhmelt 2016), we contend that this diffusion is unlikely to be uniform across countries. We advance the idea that this spatial dependence is conditioned by national immigration laws implemented by destination countries. Migrants from terrorist-prone states can be an important vehicle through which terrorism diffuses, but states’ immigration policies are potential moderators that can be employed to address – and potentially mitigate – these risks. Previous analysis on conflict or terrorism diffusion assumes that the strength of the spatial effect is independent of the political context (Neumayer & Plümer 2012), but we claim that this varies with the permeability of a country to a given spatial stimulus: migration policies. Note, however, that this does not imply that we assume that countries equally implement migration policies. We return to this issue in the appendix.

Bove & Böhmelt (2016) discuss several macro and micro-level mechanisms to explain terrorism diffusion via population movements. At the macro level, migrant populations can be characterized by strong social bonds, which connect individuals to each other within such groups. This facilitates the establishment of ‘terror networks’: a pre-existing social framework tends to be an important requirement for individuals’ consideration of joining, forming, or engaging with terror organizations (Sageman 2004; 2008). Such social frameworks are made of social bonds that facilitate the development of a common identity and views. And it is precisely migration flows that comprise social ties and linkages, and thus can be this necessary,

pre-existing social network. Terrorist organizations may then exploit those networks of migrant communities as a recruitment pool. Consistent with this argument, the Indian Ministry of Home Affairs recently warned in a policy memo to its state governments that ‘migrants are more vulnerable for getting recruited by terrorist organizations’.² Therefore, migrant populations from countries with more terrorism facilitate the diffusion of terrorism, since they help ‘creating and shaping social identities and ideological commitments to a particular cause through a process of interaction and socialization’ (Bove & Böhmelt 2016, 576). Having said that, this mechanism through which migration can make terrorism diffuse across borders, and then increase the risk of terrorism at home, is likely to be conditional on and mediated by countries’ immigration policies. In turn, some states are more strongly exposed to terrorism and its diffusion than others. Applying the definition of immigration policies from above (Helbling et al. 2017), we concentrate on regulations and control mechanisms (see Table 1). The former are ‘binding legal provisions that create or constrain rights’, whereas the latter ‘monitor whether the regulations are adhered to’ (see Helbling et al. 2017, 7). For example, a regulation might demand that immigrants require a permit to accept a job, whereas the associated control mechanisms include the penalties for employers hiring migrant workers without a legal work permit. Alternatively, a regulation might require a number of months of residence, whereas the corresponding control mechanism is whether illegal residence is considered a criminal or an administrative offense. For both regulations and controls, we can further distinguish between policies that have an external or internal focus. Finally, there are sub-dimensions of regulations: external regulations consist of eligibility requirements and additional conditions, while internal regulations comprise the security of status, i.e., all policies that regulate the duration of permits, the access to long-term settlement, and rights associated such as access to the labor market or how immigrants are monitored within the territory.³ All items’ scales in the data vary between 0 and 1, from low to high levels of restrictiveness, therefore the scale measures ‘the extent to which a regulation limits or liberalizes the rights and freedoms of immigrants’ (Helbling & Kalkum 2018, 7). But how do regulation and control policies moderate the way migration acts as a vehicle for the diffusion of terrorism? Put differently, can migration policies affect whether and how social bonds among immigrant communities facilitate the creation of terror networks (Sageman 2004; 2008)?

In line with Doosje et al. (2013, 589), feelings of personal uncertainty, injustice, and perceived intergroup threats are among the key determinants of a radical belief system (see also Rahimi & Graumans 2015). A perception of injustice is, in fact, one of the ‘staircases to terrorism’ as individuals with feelings of deprivation might be particularly encouraged to see terrorist organizations as legitimate (Moghaddam 2005). When coupled with social ties that typically exist in migration populations, symbolic and realistic threats, e.g., to the cultural and economic status can induce strong negative out-group attitudes and violent actions, which facilitate radicalization and eventually increase the risk of terrorism (see e.g., Stephan et al. 2002). Moreover, groups offering a sense of identity might attract marginalized communities that lack a sense of clear belonging – and immigrants are more likely to feel ‘insignificant’ and are, thus, more susceptible to radicalization (Hoffman et al. 2007; Lyons-Padilla et al. 2015). As people joining violent extremist movements often look for ‘personal significance’, terrorist organizations could then exploit diaspora communities, the pre-existing social bonds therein, and minorities who feel ‘culturally homeless’ (Kruglanski et al. 2009; Lyons-Padilla et al. 2015; Sageman 2004; 2008). Ultimately, individuals’ radicalization perceives traditional state authorities as illegitimate and forms attitudes toward violent behavior (Doosje et al. 2013), with terrorism being an unlikely exception here. In addition to feelings of injustice and uncertainty, there are also material factors, in particular the lack of economic opportunities, which can favor the emergence of terrorism (Caruso & Schneider 2011). Unemployed individuals face lower opportunity costs when engaging in violent behavior due to lack of legal

opportunities (Becker 1968). At the same time, relative deprivation can lead to political violence when individuals perceive a significant discrepancy between their expected and actual economic conditions and prosperity, which can be due to lack of employment opportunities (Gurr 1968). The lack of job opportunities and unmet economic expectations may lead to grievances and make it easier for terrorist organization to recruit individuals (Bagchi & Paul 2018).

Table 1. The IMPIC conceptualization of immigration policy

Modus operandi	Locus operandi	Policy sub-dimensions
Regulations	External	Eligibility (e.g., residence requirements, asylum quotas) Conditions (e.g., language skills, minimum income)
	Internal	Security of Status (e.g., permit validity, access to citizenship) Rights associated (e.g., free movement, integration measures)
Control	External (e.g., information sharing/international cooperation, biometric information)	
	Internal (e.g., marriage of convenience, identification documents)	

Source: (Helbling & Michalowski 2017)

However, we claim that immigration policies have the potential to decrease the appeal of fundamentalist groups in several intertwined, yet different ways and, thereby, address the mechanisms that give rise to individual radicalization. On one hand, rather open regulations and controls may help immigrants to integrate their host-land values with their other cultural identity. On the other hand, more open migration policies could mitigate perceptions of injustice and experiences of discrimination, and increase the sense of inclusion, purpose, and self-worth (Doosje et al. 2013; Kruglanski et al. 2009; Lyons-Padilla et al. 2015; Moghaddam 2005). Eventually, less restrictive regulations and controls that make it easier for immigrants to qualify for a certain entry track (e.g., in terms of residence or financial requirements) and improve the access to long-term settlement (e.g., through a more generous work permit validity) should lower the odds of radicalization and, thereby, potential grievances of the immigrant community toward the host state. The right to move freely within the host country and measures such as language classes, accommodation, or financial and labor-market support can reduce barriers and improve social and economic integration. The access of migrants to the labor market through *ad-hoc* skill acquisition programs allows countries to reap the benefits from access to a greater pool of skilled workers, which stimulates economic development (Aiyar et al. 2016; Bove & Elia 2017). This is not only key to ensure their effective integration into the host societies and their positive impact on the economy, it also reduces the sense of grievance and frustration that can lead to political violence. In addition, improving the access to the labor market shapes the opportunity costs of migrants and their incentives and willingness to be involved in violent activities.

Integration policies and less restrictive controls or regulations might reduce support for extremism and make migrants less likely to be targeted by or to join extremist organizations – and turn to terrorism. This is in line with the so-called ‘catalyst paradigm’ (Hainmueller et al. 2017, 256): integration efforts, policies, and regulations should be relatively open and inclusive as they then provide ‘immigrants with the necessary incentives and resources to integrate and invest in a future in the host country’. Conversely, over-restrictive migration policies may lead to a limited access to safe territory and increase illegal movements of people, which can be targeted by terrorist organizations. These conditions could well assist terrorists and be conducive to terrorist activities. Dreher et al. (2017, 3) argue the same when stating that ‘stricter policies segregating foreigners already living in a country lead to alienation and thus increase the risk of terror’. Lyons-Padilla et al. (2015, 9) conclude furthermore that many of the current counterterrorism policies in place, due to their exclusive character, further marginalize migrants and thus ‘may actually paradoxically fuel support for extremism’.⁴ Finally, Caruso & Schneider (2011) show that unemployment and poor expectations about future economic scenarios increase frustration and terrorist activity. This argumentation leads to the following hypothesis:

Less-restrictive hypothesis: Migration populations are less likely to be a vehicle of terrorism diffusion when host countries have less restrictive migration policies.

Having said that, more integrative and open policies may not have a major impact on immigrants’ integration and, thus, on whether or not terrorism diffuses. Instead, more restrictive control and regulation policies could well dampen the diffusion of terrorism via migration flows (see also Enders & Sandler 1993). As Abadie (2004) reports, more repressive policies ‘help keep terrorism at bay’. Reconnaissance and surveillance activities, the use of biometric information, or increased controls on forged documents can help identifying potential terrorists and prevent attacks already in their planning phase (Bellair 2000; 2000). Moreover, information sharing and international cooperation over intelligence and evidence-gathering, as implemented by immigration regulations and controls, may improve the identification of potential terrorists. For example, data gathered by law-enforcement agencies across Europe are now shared under the ‘principle of availability’, defined in the EU’s Hague Program (Brown & Korff 2009). Therefore, tightened immigration policies with increased surveillance of specific segments of the population can assist counterterrorism initiatives in the identification of potentially violent extremists. This mirrors recent studies suggesting that intelligence to anticipate terrorism is the most effective anti-terrorist policy (Faria 2006). Not surprisingly, there is plenty of anecdotal evidence illustrating ‘success stories’ of intelligence-led policing stemming from stricter laws and policies that made it less difficult to identify individuals or groups preparing a terrorist attack.⁵ Moreover, to tackle the ‘internationalism’ of Al-Qaeda, Western democracies have introduced new regulations allowing the withdrawal of entry and stay permits and the revocation of citizenship for danger to (rather than a serious breach of) public order and the immediate deportation of any alien who commits acts against democratic rights (Epifanio 2011). And recall the memo from the Indian Ministry of Home Affairs,⁶ which outlines the tightening of several immigration laws and regulations in light of the possible security threat posed by immigration, including more power delegated to state police to arrest foreign nationals living in India illegally. Ultimately, stricter regulations and controls can give countries more flexibility in granting some migrants temporary access and exert greater control on specific segments of the population, in particular when potential threats are anticipated.⁷ At the same time, stricter control mechanisms can help governments to identify, control, and expel more effectively potential terrorists and, thus, likely have a better chance to prevent terrorist attacks. This implies a second, competing hypothesis:

More-restrictive hypothesis: Migration populations are less likely to be a vehicle of terrorism diffusion when host countries have more restrictive migration policies.

Research design

Data, dependent variable, and methods

We evaluate the two hypotheses empirically with a unique data set we compiled using the Global Terrorism Database (GTD) (Enders et al. 2011) and recently released data on OECD countries' immigration policies between 1980 and 2010 (Helbling et al. 2017; Helbling & Michalowski 2017). The country-year is the unit of analysis and, after accounting for missing values and temporally lagging all our explanatory items, our sample comprises 32 potential host states from the OECD, which corresponds to 911 observations.

The dependent variable refers to the level of terrorism in each country-year. We rely on the GTD's definition, i.e., terrorism is 'the premeditated use or threat to use violence by individuals or sub-national groups against noncombatants in order to obtain a political or social objective through the intimidation of a large audience beyond that of the immediate victims' (Enders et al. 2011, 321). The GTD codes the number of terrorist incidents and their nature, i.e., whether they are domestic or transnational ones, in a given country-year. For our analysis, we use the variable's natural logarithm (after adding the value of 1), which accounts for the skewed distribution of terrorism and its events.⁸

Our main interest is to examine whether and how immigration policies affect the diffusion of terrorism via population movements, i.e., whether and how national migration regulations and controls influence that a country's level of terrorism at time t is systematically affected by other countries' level of terrorism at $t-1$, which are linked to the focal country via migration. We estimate spatial temporal autoregressive models based on ordinary least squares (spatial-OLS) to this end and specify a weighting matrix on population populations to capture linkages among countries. In structural terms, we model:

$$y_t = \varphi y_{t-1} + \beta X_{t-1} + \rho W y_{t-1} + s$$

with y_t standing for our outcome variable, y_{t-1} pertains to the (one-year) temporally lagged outcome item, X_{t-1} is a series of explanatory variables, which are also one-year temporally lagged and that we define below; the last component, s , stands for the error term. The main component of our analysis is the spatial lag, $W y_{t-1}$, which is the product of the temporally lagged dependent variable and a row-standardized weighting matrix (W). The values ($w_{i,j}$) in W measure the relative connectivity of state j to state i (with $w_{i,i}=0$). When using temporally lagged values of the dependent variable to construct the spatial lag, spatial-OLS is justified (Franzese & Hays 2007; 2008; Ward & Gleditsch 2008). In addition, the underlying theoretical rationale behind this is that the diffusion effect we argue for takes time to materialize.

When estimating any spatial effect, we must control for a number of relevant 'exogenous-external conditions or common shocks and spatially correlated unit level factors' (Franzese & Hays 2007, 142). The literature highlights that this is necessary to address concerns about common exposure, i.e., when what might appear to be a diffusion effect is actually driven by unit-level features that spatially cluster or common trends and exogenous shocks shape the results. Following Franzese & Hays (2007; 2008) we therefore incorporate a temporally lagged dependent (described above) and fixed effects for countries and years. Dummies for years capture influences from temporal shocks, which affect the entire system of countries. The state dummy variables control for any time-invariant forces at the country level. In combination with

several control variables that we describe below, we can thus credibly ensure that terrorism diffusion ‘cannot be dismissed as a mere product of a clustering in similar [state] characteristics’ (Buhaug & Gleditsch 2008, 230; see also Neumayer & Plümper 2010).

Explanatory variables: Terrorism diffusion and migration policies

Our first explanatory variable is a spatial lag based on a matrix that links countries via migrant populations, i.e., the variable’s matrix measures the yearly migrant stock from a foreign state in the country under study.⁹ Following Özden et al. (2011), which constitutes also our data source for migration flows, international migrant stocks are defined as the number of people born in a country other than that in which they live. Note that the spatial lag’s underlying matrix focuses on OECD countries only as destination countries, but all states in the world are potential ‘senders’ of migrants. That is, non-OECD states are not destinations of migration movements, but all states worldwide between 1980 and 2010 are countries of origin. We follow Özden et al. (2011, 14), and omit refugees from total migrant numbers.¹⁰ From these raw data, we calculate the total number of immigrants, with missing data being interpolated. Ultimately, each element $w_{i,j}$ of the connectivity matrix measures the migrant population in country i that has country j as the state of origin in $t-1$. In the absence of any migration population from j in i , $w_{i,j}$ takes the value of 0. As indicated in the previous section, this row-standardized matrix (W) is multiplied with y_{t-1} to create the spatial lag, which then measures the average degree of terrorism in other countries weighted by migrant populations.

The second core explanatory variable is taken from the Immigration Policies in Comparison (IMPIC) project, which offers a detailed conceptualization of immigration policies across four dimensions in OECD countries between 1980 and 2010.¹¹ As elaborated above (Table 1), the data set makes a broad distinction between regulations and control mechanisms, internally and externally, while regulations refer to eligibility, conditions, status, and rights. In each area, the IMPIC project measures on a quasi-continuous scale between 0 and 1 how restrictive a policy is.¹² The IMPIC also includes an aggregated variable, i.e., an average across all items in the data set to capture the total level of restrictiveness of immigration policies in a country. Countries in the dataset have different immigration histories, from traditional destinations of mass immigration (e.g., the US) to countries that only recently experienced a positive net migration such as Italy to countries with limited immigration, e.g., Finland (Helbling et al. 2017). In the appendix, we show the variation in the aggregate level of *Immigration Policy Restrictions* across countries and within countries over time. For example, while the index has remained stable in Chile or Luxemburg over time, the Czech Republic shows substantial fluctuations in 1980-2010. Whereas in Greece or the United Kingdom more restrictive policies have been implemented since 1980, Poland experienced considerable movement towards moderately liberal policies, although during the 1980s the country had the most restrictive immigration regime in our sample. *Immigration Policy Restrictions* is the variable we focus on for our main models below, but we disaggregate it along its internal dimensions after our main set of estimations.

We multiply Wy : *Migrant Inflow* and *Immigration Policy Restrictions* to create an interaction term, which captures whether and how a country’s immigration policies can moderate the diffusion of terrorism via migration. In the appendix, we follow Hainmueller et al. (2018) and examine the linearity of the effect and the common support of the moderator in detail.

Control variables

We include a series of covariates that control for alternative influences leading to a higher level of terrorism, which may also plausibly be associated with immigration policies and population movements (Alarian & Goodman 2017; Breunig et al. 2012; Helbling & Michalowski 2017). This helps addressing concerns over omitted variable bias and it controls for observable determinants of our main explanatory items.

First, there is a variable measuring a state's level of democracy based on the combined polity score from the Polity IV project. This is 21-point scales ranges from -10 to 10, with higher values standing for more democratic forms of government. In our sample of OECD states, it is not surprising that this item has a mean value of 8.905 (though it ranges between -8 and 10). On one hand, democracies might be particularly prone to terrorism as they are the more open, tolerant societies and less repressive than autocracies. On the other hand, democracies allow for non-violent means to express grievances against the state, which could also lower the level of terrorism (Li 2005)

Second, we incorporate standard socio-economic controls in the form of GDP per capita and population. Both variables are taken from the World Bank Development Indicators. The former is measured in constant 2005 US Dollars and defined by the World Bank as 'the gross domestic product divided by midyear population. GDP is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products'.¹³ Moreover, there is a country's midyear total population to control for population size. Both items are log-transformed and, similar to all other items, temporally lagged.

Table 2. Descriptive statistics

	Obs.	Mean	Std.Dv.	Min	Max
Terrorist Attacks (ln)	911	1.364	1.442	0.000	6.267
Lagged Dependent Variable	911	1.401	1.459	0.000	6.267
Wy: Migrant Inflow	911	1.271	0.425	0.539	2.536
Immigration Policy Restrictions	911	0.429	0.096	0.290	0.908
Interaction Term	911	0.550	0.240	0.189	1.770
Democracy	911	8.905	3.151	-8.000	10.000
Total Migration Population	911	9.445	8.716	0.424	38.537
GDP per capita (ln)	911	9.943	0.696	7.972	11.382
Population (ln)	911	9.648	1.371	5.898	12.634
Economic Globalization	911	70.183	15.063	28.8	99.16

Third, we control for economic openness and the total number of migrants in a country. The latter is operationalized as the total migrant stock (summed across all sending countries) as a share of the total population.¹⁴ If our findings hold even when controlling for the 'unweighted' migrant population, the confidence in our results pointing to a genuine diffusion effect is increased. Moreover, immigrants generally tend to go to wealthier and more democratic states that are less conflict-prone (Breunig et al. 2012). *Total Migration Population* controls for this self-selection and is theoretically and empirically different from *Wy: Migrant Inflow*. Finally, economic openness pertains to a country's integration in the global economy as measured by its economic flows and restrictions. The data are taken from Dreher (2006). Table 2 summarizes the descriptive statistics of all variables.

Table 3. Terrorism: The moderating effect of immigration restrictions

	Model 1	Model 2	Model 3
--	----------------	----------------	----------------

Lagged Dependent Variable	0.473*** (0.030)	0.471*** (0.030)	0.468*** (0.030)
Democracy	-0.004 (0.011)	0.001 (0.011)	0.000 (0.011)
Total Migration Population	0.012 (0.018)	0.018 (0.018)	0.016 (0.018)
GDP per capita (ln)	-0.300 (0.205)	-0.403* (0.212)	-0.484** (0.219)
Population (ln)	0.956** (0.445)	1.179** (0.460)	1.070** (0.462)
Economic Globalization	0.010* (0.005)	0.010** (0.005)	0.011** (0.005)
Wy: Migrant Inflow		0.493* (0.264)	1.056*** (0.367)
Immigration Policy Restrictions			1.955** (0.901)
Wy: Migrant Inflow * Immigration Policy Restrictions			-1.257** (0.586)
Constant	-7.746 (5.944)	-11.717* (6.193)	-10.379* (6.237)
Observations	911	911	911
Country fixed effects	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes
Prob>F	0.000	0.000	0.000

Note: Standard errors in parentheses; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Empirical findings

Table 3 summarizes three models. Model 1 comprises the control variables only next to the country and year fixed effects. In Model 2, we additionally include the migration-spatial lag, *Wy: Migrant Inflow*. Model 3 constitutes our main model as we consider *Immigration Policy Restrictions* and its interaction with the spatial lag next to the control covariates. Due to the row standardization, we can directly interpret the spatial lag in Model 2. However, due to the inclusion of the temporally lagged dependent variable, the table entries, including the estimates pertaining to the spatial lags, are only short-term effects (impact in the current year). The short-term impact of *Wy: Migrant Inflow* is depicted in Figure 1, while the asymptotic long-term impact of the spatial lag is calculated according to Plümper et al., (2005, 336) and discussed in the text below. In addition, as for our variables of interest and their interaction in Model 3, neither their size, signs, nor standard errors can be directly interpreted. Figure 2 thus plots the average marginal effects of *Wy: Migrant Inflow* for given values of *Immigration Policy Restrictions*.

First, *Wy: Migrant Inflow* is positively signed and significant at the 10 percent level in Model 2. This finding underlines that migration populations can be a vehicle for terrorism to diffuse from one state to another. In substantive terms, the marginal effect in Model 2 shows that a one-unit increase in *Wy: Migrant Inflow* leads to a rise in terrorist attacks of about 1.64. As indicated above, this is merely the short-term effect, though. The asymptotic long-term marginal effect of our spatial lag is at 0.932 (with a 90 percent confidence interval of [0.102; 1.935]), which translates into 2.54 attacks. Figure 1 emphasizes this as we plot the predicted values of our dependent variable against the values of *Wy: Migrant Inflow*. For low levels of

the spatial lag, the expected values of *Terrorist Attacks (ln)* cluster at around 1, which corresponds to about 2.71 terrorist attacks. When increasing *Wy: Migrant Inflow* toward its mean of 1.27, the predicted values of the outcome approach 1.5 already. At the maximum of *Wy: Migrant Inflow* while holding all other items constant at their means, the predicted value of *Terrorist Attacks (ln)* is about 2, which translates into about 7.39 attacks.

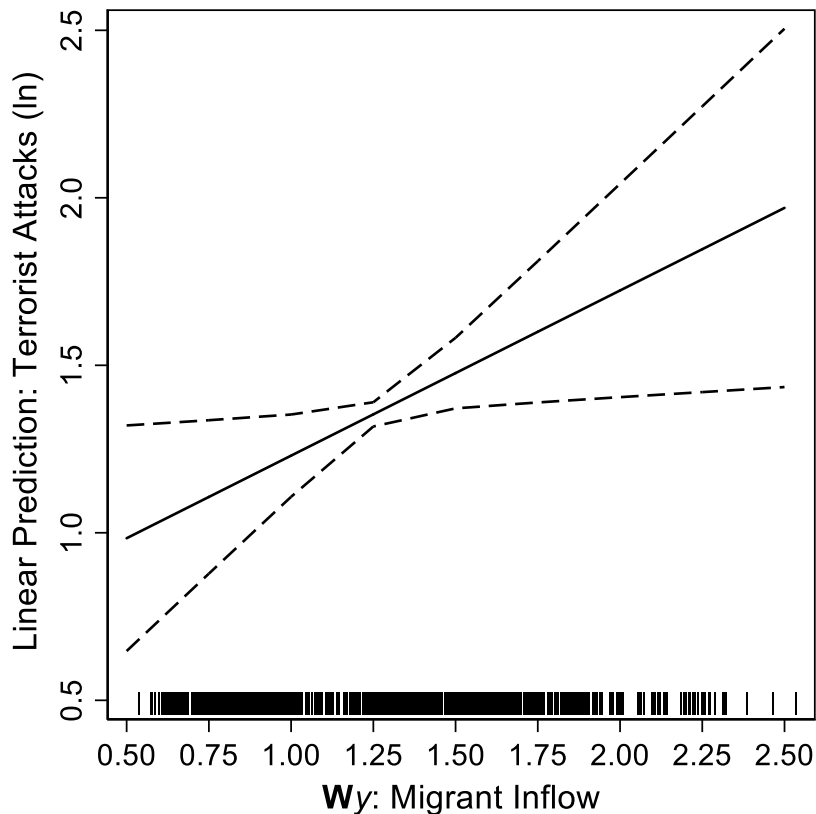


Figure 1. Terrorism: The impact of *Wy: Migrant Inflow*.

Graph shows linear predictions of *Terrorist Attacks (ln)*, while holding all other covariates constant at their means; dashed lines signify 90 percent confidence intervals; rug plot at horizontal axis illustrates distribution of *Wy: Migrant Inflow*.

These results mirror Bove & Böhmelt (2016), but they do not directly take into account that states have instruments at their disposal to address the diffusion of terrorism via migration. To this end, Model 3 incorporates *Immigration Policy Restrictions* and its interaction with the spatial lag. In turn, we estimate the moderating effect of countries' immigration policies by examining whether the positive impact of *Wy: Migrant Inflow* from Model 2 prevails regardless of what level of restrictiveness is imposed on the migrant population. Figure 2 plots the average marginal effects of the spatial lag conditional on the values of *Immigration Policy Restrictions*. On one hand, the graph shows that there are very few country-years in which extremely restrictive policies have been implemented. The rug plot at the bottom of Figure 2 becomes rather sparse with higher values of *Immigration Policy Restrictions*. On the other hand, while *Wy: Migrant Inflow* exerts a positive marginal affect for low levels of *Immigration Policy Restrictions*, this impact is statistically insignificant for higher values of that item, i.e., more restrictive policies. The marginal effect of the spatial lag becomes insignificant for a level of restrictiveness of about 0.48. The empirical analysis discussed here, and the series of robustness checks in the appendix, provide more support for the *More-restrictive hypothesis*,

which claims that more stringent migration policies can mitigate the diffusion of terrorism via population movements.

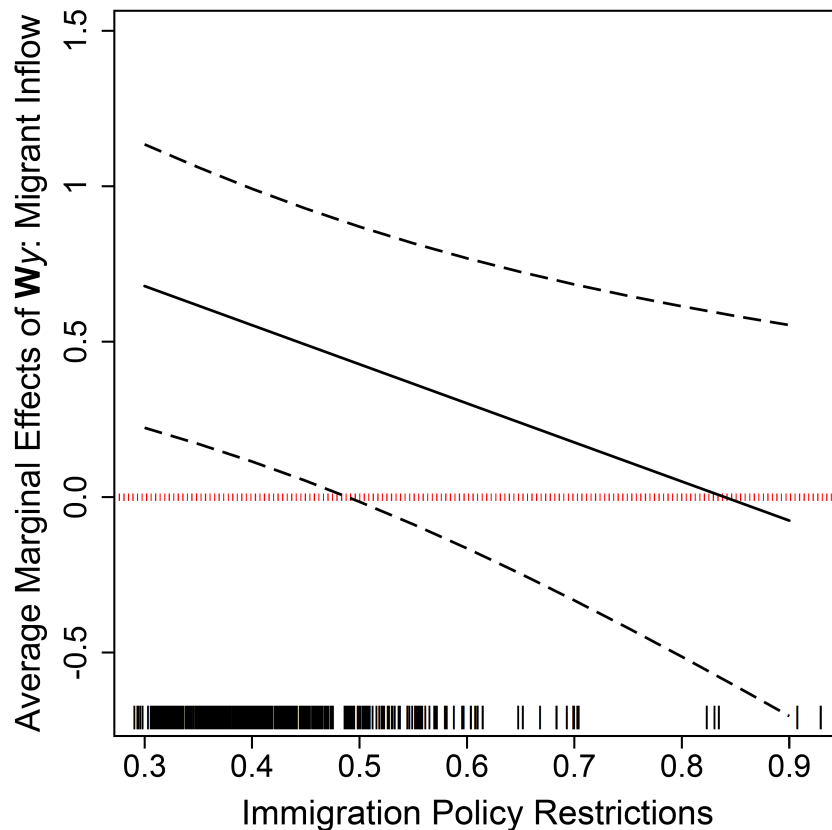


Figure 2. Terrorism: The moderating effect of immigration restrictions. Graph shows average marginal effects of W_y : Migrant Inflow for various values of *Immigration Policy Restrictions*, while holding all other covariates constant at their means; dashed lines signify 90 percent confidence intervals; rug plot at horizontal axis illustrates distribution of *Immigration Policy Restrictions*; red dotted line marks marginal effect of 0.

Having said that, this should *not* imply that or be interpreted as overly restrictive policies ‘naturally’ follow from and must be implemented at all times in light of this research. First, note that the coefficient estimate of *Immigration Policy Restrictions* in Model 3 is positive and highly significant. Due to the interaction with our spatial lag, this marginal effect only applies to values of 0 – and, by extension, rather low values – of W_y : *Migrant Inflow*. Specifically, the effect of *Immigration Policy Restrictions* is positive for values up to about 1.00 of W_y : *Migrant Inflow*, which relates to scenarios of countries that have a rather low migration population or larger foreign-born population segments that come from less-terror prone countries. In our data set, 40 percent of the cases, including the US and Germany in 2010 or the UK in 2009, are such countries. Our findings show that more restrictive policies under those circumstances may well be counterproductive: overly restrictive regulations and controls then work against the integration of migrants, and rather foster and perhaps even increase their grievances against the state. It is under those circumstances that the level of terrorism could well rise.

Second, while more restrictive immigration policies can lower the diffusion of terrorism, this finding does not fully take into account other implications than that. For instance, immigration is commonly linked to a series of ‘good’ outcomes such as higher economic

growth, which may at least indirectly affect terrorism in the focal country. That said, when imposing overly restrictive policies to begin with, these effects are lost. Third, note the insignificant impact of *Total Migration Population*. This result could well demonstrate that migrants as such, i.e., when not taking their country of origin and the degree of terrorism in these home states into account, have very little to do with the degree of terrorism in a receiving country. This highlights that we have to thoroughly distinguish between the countries of origin of an immigrant; indiscriminate immigration laws are likely counterproductive. At the same time, the insignificant result may also be explained by a self-selection process, i.e., that migrants go to those countries with less restrictive policies as they feel ‘welcome’ there. If more restrictive policies are in place, fewer migrants are likely to choose a state as a potential new home and the overall positive effect from migration on the economy or the pool of human capital is lost – and due to the opposing effects of two different mechanisms, the overall effect of *Total Migration Population* is statistically insignificant.

Coming to the other control variables, their associated effects are mostly expected. The most consistent significant findings are given for *Population (ln)* and *Economic Globalization*. In line with previous works’ results, the larger the population of a state, the more terrorist attacks (all else equal). Furthermore, the more open a country as defined by its integration into the world’s economic network, the higher the degree of terrorism. We also find a negative and statistically significant effect for *GDP per capita (ln)* in Models 2 and 3, which mirrors several other studies that claim a higher income leads to fewer terrorist attacks (Young & Findley 2011). Third, the lagged dependent variable shows that terrorism is characterized by temporal dependencies in that a higher level of terrorism in the previous year is associated with more terrorism in the current period. For each additional terrorist attack in $t-1$, we expect to see about an increase of about 60 percent in the geometric mean of *Terrorist Attacks (ln)*.

Finally, Table 4 disaggregates *Immigration Policy Restrictions* that captures the level of restrictiveness pertaining to regulations and control mechanisms, internally and externally. Specifically, some policies may dampen terrorism, whereas other policies could aggravate it. In fact, the typology of the policy index suggests that there could be different dimensions to policies. Given our theoretical argument, we may be particularly interested in the *internal* regulations and controls for immigration, while making a distinction between regulations and controls. To this end, Model 4 focuses on the security of status, an internal immigration regulation that includes all policies that regulate the duration of residence, the renewal of the permit, and the access to settlement in the long-term. We interact this variable with *Wy: Migrant Inflow*. Model 5 is based on the level of restrictiveness of the rights associated with the immigration status, another internal regulation that captures training and labor rights for migrants as well as how immigrants are monitored within the territory. As such, both categories may contain provisions that could have effects in opposite directions. For example more monitoring lowers the impact on terrorism, but more restrictive regulations that also inhibit labor-market access increase its level. The net effect is not obvious, though, and this is an empirical question that we determine from the data analysis. Model 6 concentrates on the average of security status and rights associated, i.e., we focus on internal regulations more generally. Model 7 is an analysis of the average value of restrictiveness across both internal regulations and internal controls. That is, this model is similar to those based on *Immigration Policy Restrictions* in Table 3, albeit Model 7 omits the external control-and-regulation dimension completely.

Table 4. The moderating effect of immigration restrictions: Disaggregating policies

	Model 4 (Status)	Model 5 (Rights)	Model 6 (Regul.)	Model 7 (Regul. and control)
--	-----------------------------	-----------------------------	-----------------------------	---

Lagged Dependent Variable	0.469*** (0.030)	0.468*** (0.030)	0.467*** (0.030)	0.469*** (0.030)
Democracy	0.000 (0.011)	0.000 (0.011)	0.000 (0.011)	0.001 (0.011)
Total Migration Population	0.015 (0.019)	0.017 (0.018)	0.017 (0.018)	0.016 (0.018)
GDP per capita (ln)	-0.502** (0.218)	-0.502** (0.219)	-0.527** (0.219)	-0.459** (0.217)
Population (ln)	1.128** (0.461)	1.062** (0.465)	1.076** (0.463)	1.120** (0.460)
Economic Globalization	0.010** (0.005)	0.010** (0.005)	0.010** (0.005)	0.009** (0.005)
Wy: Migrant Inflow	0.914*** (0.340)	0.824*** (0.294)	0.962*** (0.321)	1.199*** (0.435)
Immigration Policy Restrictions	1.068* (0.635)	1.265** (0.530)	1.484** (0.628)	1.929** (0.951)
Wy: Migrant Inflow * Immigration Policy Restrictions	-0.779** (0.391)	-0.830** (0.332)	-0.988** (0.392)	-1.267** (0.637)
Constant	-10.556* (6.214)	-9.632 (6.234)	-9.790 (6.224)	-10.997* (6.217)
Observations	911	911	911	911
Country fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Prob>F	0.000	0.000	0.000	0.000

Note: Standard errors in parentheses; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

When studying Table 4, the findings are similar to what is discussed in Table 3. In other words, our results are not driven by a particular component of the aggregated restrictiveness index from Helbling et al. (2017), and we feel confident in concluding that migration policies can moderate terrorism diffusion. The decisive aspect of these policies is thus less their nature (e.g., regulation vs. control), but their degree of restrictiveness: and higher levels of restrictiveness of any immigration policy then have a moderating impact on the diffusion of terrorism.

In the appendix, we also provide a number of extensions to demonstrate the robustness of our main conclusions. In particular, we build on Gaibullov et al. (2017) and include additional control variables. We also control for other sources of transnational diffusion by including spatial lags based on geography. We further address issues of self-selection and endogeneity by restricting the sample to countries characterized by overly restrictive external migration policies and by means of a simultaneous equation model. We also control for a spatial effect of migration policies, consider migration influx rather than stocks, and distinguish between immigration from within the European Union and outside of it. Finally, we present the out-of-sample prediction power of our main models and differentiate between domestic and transnational terrorism using the GTD (Enders et al. 2011) and ITERATE (Mickolus 1982), comprising information on international terrorism only.

Conclusion

The potential security implications of migration flows have received a great deal of attention from both practitioners and scholars. To be clear, only the vast minority of migrants – if any – arrives or lives in a country with hostile intentions or plans to stage a terrorist attack. However, several studies suggest that terrorist organizations may exploit networks of migrant communities as a recruitment pool and fuel their radicalization, particularly when they stem from terrorist-prone countries. This can give rise to security threats in recipient states and simply ignoring possible security consequences stemming from population movements is unhelpful for research or policy. Using data on terrorism and migration, we replicated the results from previous work (Bove & Böhmelt 2016) as we find that migration can indeed be a vehicle for terrorism to diffuse. We moved beyond this result, though, and sought to contribute to the debate in a two-fold way. First, can immigration regulations and controls moderate terrorism diffusion? And, second, can national immigration policies be effective instruments? Our research highlights that more restrictive immigration policies may indeed make it more difficult for terrorism to diffuse across borders. This finding is robust across a series of changes in model specifications and substantive in size.

Migration policies are therefore a potentially mitigating factor. Yet, it would be misleading to derive that implementing more and more restrictive immigration policies is the default policy implication we suggest. In fact, terrorism can travel from one country to another via larger migration populations, but this only applies to target countries with exceptionally lax regulations and control mechanisms. The unconditional effect of our measure on immigration policies highlights that more restrictiveness actually leads to more terrorism in countries with low migration populations or migrants coming from countries that are less terror-prone. In addition, as Brown & Korff (2009) argue, overly restrictive policies including surveillance and profiling programs significantly challenge democratic core values and the rule of law. Hence, implementing more restrictive policies may only be effective in preventing the diffusion of terrorism under rather narrowly defined circumstances, and by no means should this be seen as a ‘default’ tool in trying to address terrorism. While our work thus stresses that states can have effective tools at their disposal for dealing with the security consequences of transnational population movements, the key task for future research will be to identify which specific policies – and their respective levels of openness or restrictiveness – have an impact and which do not (see also Dreher et al. 2017). With Table 4, we provide an initial analysis in that direction, but more disaggregated work seems necessary. Equally important, while we model the impact of policies’ restrictiveness, the issue of specifically integration policies is only indirectly captured due to the lack of data. European states established for a long time language-training or labor-market integration programs for migrants, which is vital for ‘migrants’ economic independence, and a precondition for a positive economic impact of migration’ (OECD 2015, 13). Similarly, Australia, Canada, or the US have extensive experience in so-called ‘settlement services’ for migrants (OECD 2015). Such programs and policy tools may well be more and directly effective in lowering the risk stemming from terrorism diffusion, but data limitations prevent us from explicitly assessing their impact and effectiveness. Finally, there is plenty of anecdotal evidence suggesting that refugees and migrants are often targeted by politically-motivated violence, such as the Rohingya refugees who have sought refuge in India and have become victims of persecution from native populations (Böhmelt et al. 2019). It is also possible that terrorist attacks are organized by anti-immigrant groups, thus coding efforts to distinguish between migrants as the source or target of terrorism seem urgently in need.

Dealing with the security implications of population movements is at times challenging for any country, but not an impossibility. And there is also no automatic link between migration populations and the transnational diffusion of terrorism, or more restrictive immigration laws and preventing terrorist attacks. But our research might help clarify the impact that can be

expected and what policies may be enacted. Blaming migrants for higher levels of terrorism or simply closing borders entails large humanitarian consequences or can be outright counterproductive, as we show. We nonetheless recognize the significant challenges to immigration policies, their level of restrictiveness, and the difficulty in choosing the ‘right’ policies to effectively deal with terrorism and its diffusion. In many countries, simply increasing the level of restrictiveness will *not* be adequate or help at all, and to us it seems more important and potentially more effective to implement comprehensive, well-tailored policies to support integration efforts than merely raising the restrictiveness of immigration laws.

References

- Abadie, A. (2004). *Poverty, Political Freedom, and the Roots of Terrorism* (Working Paper No. 10859). National Bureau of Economic Research. Retrieved from <http://www.nber.org/papers/w10859>.
- Abadie, A. & Gardeazabal, J. (2003). The Economic Costs of Conflict: A Case Study of the Basque Country. *American Economic Review* 93(1): 113-132.
- Adamson, F.B. (2006). Crossing Borders: International Migration and National Security. *International Security* 31(1): 165-199.
- Aiyar, S., Barkbu, B., Batini, N., et al. (2016). The Refugee Surge in Europe: Economic Challenges. *IMF Staff Discussion Notes* 16(2): 1.
- Aksoy, D., Carter, D.B. & Wright, J. (2012). Terrorism in Dictatorships. *Journal of Politics* 74(3): 810-826.
- Alarian, H.M. & Goodman, S.W. (2017). Dual Citizenship Allowance and Migration Flow: An Origin Story. *Comparative Political Studies* 50(1): 133-167.
- Algan, Y., Bisin, A., Manning, A. & Verdier, T. (eds.). (2012). *Cultural Integration of Immigrants in Europe*. Oxford, New York: Oxford University Press.
- Andreas, P. (2003). Redrawing the Line: Borders and Security in the Twenty-First Century. *International Security* 28(2): 78-111.
- Bagchi, A. & Paul, J.A. (2018). Youth unemployment and terrorism in the MENAP (Middle East, North Africa, Afghanistan, and Pakistan) region. *Socio-Economic Planning Sciences* 64(1): 9-20.
- Bandyopadhyay, S. & Sandler, T. (2014). Immigration policy and counterterrorism. *Journal of Public Economics* 110(1): 112-123.
- Becker, G.S. (1968). Crime and Punishment: An Economic Approach. *Journal of Political Economy* 76(2): 169-217.
- Bellair, P.E. (2000). Informal Surveillance and Street Crime: A Complex Relationship. *Criminology* 38(1): 137-170.
- Bloemraad, I., Korteweg, A. & Yurdakul, G. (2008). Citizenship and Immigration: Multiculturalism, Assimilation, and Challenges to the Nation-State. *Annual Review of Sociology* 34(1): 153-179.
- Böhmelt, T., Bove, V. & Gleditsch, K.S. (2019). Blame the victims? Refugees, state capacity, and non-state actor violence. *Journal of Peace Research* 56(1): 73-87.
- Bove, V. & Böhmelt, T. (2016). Does Immigration Induce Terrorism? *Journal of Politics* 78(2): 572-588.
- Bove, V. & Elia, L. (2017). Migration, Diversity, and Economic Growth. *World Development* 89(1): 227-239.
- Braithwaite, A. & LI, Q. (2007). Transnational Terrorism Hot Spots: Identification and Impact Evaluation. *Conflict Management and Peace Science* 24(4): 281-296.
- Breunig, C., Cao, X. & Luedtke, A. (2012). Global Migration and Political Regime Type: A Democratic Disadvantage. *British Journal of Political Science* 42(4): 825-854.

- Brown, I. & Korff, D. (2009). Terrorism and the Proportionality of Internet Surveillance. *European Journal of Criminology* 6(2): 119-134.
- Buhaug, H. & Gleditsch, K.S. (2008). Contagion or Confusion? Why Conflicts Cluster in Space. *International Studies Quarterly* 52(2): 215-233.
- Caruso, R. & Schneider, F. (2011). The socio-economic determinants of terrorism and political violence in Western Europe (1994-2007). *European Journal of Political Economy* 27(1): S37-S49.
- Constant, A. & Zimmermann, K. (2013). *International Handbook on the Economics of Migration* (Books). Edward Elgar Publishing. Retrieved from <https://econpapers.repec.org/bookchap/elgeebook/4026.htm>.
- Doosje, B., Loseman, A. & Bos, K. van den. (2013). Determinants of Radicalization of Islamic Youth in the Netherlands: Personal Uncertainty, Perceived Injustice, and Perceived Group Threat. *Journal of Social Issues* 69(3): 586-604.
- Dowty, A. & Loescher, G. (1996). Refugee Flows as Grounds for International Action. *International Security* 21(1): 43-71.
- Dreher, A. (2006). Does globalization affect growth? Evidence from a new index of globalization. *Applied Economics* 38(10): 1091-1110.
- Dreher, A., Gassebner, M. & Schaudt, P. (2017). *The Effect of Migration on Terror - Made at Home or Imported from Abroad?* (SSRN Scholarly Paper No. ID 2976273). Retrieved from <https://papers.ssrn.com/abstract=2976273>.
- Dustmann, C. (ed.). (2015). *Migration: Economic Change, Social Challenge*. Oxford, New York: Oxford University Press.
- Dustmann, C. & Frattini, T. (2014). The Fiscal Effects of Immigration to the UK. *The Economic Journal* 124(580): F593-F643.
- Enders, W. & Sandler, T. (1993). The Effectiveness of Antiterrorism Policies: A Vector-Autoregression-Intervention Analysis. *American Political Science Review* 87(4): 829-844.
- Enders, W. & Sandler, T. (2006). Distribution of Transnational Terrorism among Countries by Income Class and Geography after 9/11. *International Studies Quarterly* 50(2): 367-393.
- Enders, W., Sandler, T. & Gaibullov, K. (2011). Domestic versus transnational terrorism: Data, decomposition, and dynamics. *Journal of Peace Research* 48(3): 319-337.
- Epifanio, M. (2011). Legislative response to international terrorism. *Journal of Peace Research* 48(3): 399-411.
- Faria, J.R. (2006). Terrorist Innovations and Anti-Terrorist Policies. *Terrorism and Political Violence* 18(1): 47-56.
- Findley, M.G. & Young, J.K. (2012). Terrorism and Civil War: A Spatial and Temporal Approach to a Conceptual Problem. *Perspectives on Politics* 10(2): 285-305.
- Franzese, R.J. & Hays, J.C. (2007). Spatial Econometric Models of Cross-Sectional Interdependence in Political Science Panel and Time-Series-Cross-Section Data. *Political Analysis* 15(2): 140-164.
- Franzese, R.J. & Hays, J.C. (2008). Interdependence in Comparative Politics: Substance, Theory, Empirics, Substance. *Comparative Political Studies* 41(4-5): 742-780.
- Gaibullov, K., Piazza, J.A. & Sandler, T. (2017). Regime Types and Terrorism. *International Organization* 71(3): 491-522.
- Gaibullov, K. & Sandler, T. (2008). Growth Consequences of Terrorism in Western Europe. *Kyklos* 61(3): 411-424.
- Gurr, T. (1968). Psychological Factors in Civil Violence. *World Politics* 20(2): 245-278.
- Hainmueller, J., Hangartner, D. & Pietrantuono, G. (2017). Catalyst or Crown: Does Naturalization Promote the Long-Term Social Integration of Immigrants? *American Political Science Review* 111(2): 256-276.

- Hainmueller, J., Mummolo, J. & Xu, Y. (2018). How Much Should We Trust Estimates from Multiplicative Interaction Models? Simple Tools to Improve Empirical Practice. *Political Analysis*: Forthcoming.
- Helbling, M., Bjerre, L., Römer, F. & Zobel, M. (2017). Measuring Immigration Policies: the IMPIC database. *European Political Science* 16(1): 79–98.
- Helbling, M. & Kalkum, D. (2018). Migration policy trends in OECD countries. *Journal of European Public Policy* 25(12): 1779-1797.
- Helbling, M. & Leblang, D. (2019). Controlling immigration? How regulations affect migration flows. *European Journal of Political Research* 58(1): 248-269.
- Helbling, M. & Michalowski, I. (2017). A New Agenda for Immigration and Citizenship Policy Research. *Comparative Political Studies* 50(1): 3-13.
- Hoffman, B., Rosenau, W., Curiel, A.J. & Zimmermann, D. (2007). The Radicalization of Diasporas and Terrorism. Product Page. Retrieved from https://www.rand.org/pubs/conf_proceedings/CF229.html.
- Krieger, T. & Meierrieks, D. (2011). What causes terrorism? *Public Choice* 147(1): 3-27.
- Kruglanski, A.W., Chen, X., Dechesne, M., Fishman, S. & Orehek, E. (2009). Fully Committed: Suicide Bombers' Motivation and the Quest for Personal Significance. *Political Psychology* 30(3): 331-357.
- Li, Q. (2005). Does Democracy Promote or Reduce Transnational Terrorist Incidents? *Journal of Conflict Resolution* 49(2): 278-297.
- Lyons-Padilla, S., Gelfand, M.J., Mirahmadi, H., Farooq, M. & van Egmond, M. (2015). Belonging nowhere: Marginalization & radicalization risk among Muslim immigrants. *Behavioral Science & Policy* 1(2): 1-12.
- Milton, D., Spencer, M. & Findley, M. (2013). Radicalism of the Hopeless: Refugee Flows and Transnational Terrorism. *International Interactions* 39(5): 621-645.
- Moghaddam, F.M. (2005). The Staircase to Terrorism: A Psychological Exploration. *American Psychologist* 60(2): 161-169.
- Nemeth, S.C., Mauslein, J.A. & Stapley, C. (2014). The Primacy of the Local: Identifying Terrorist Hot Spots Using Geographic Information Systems. *Journal of Politics* 76(2): 304-317.
- Neumayer, E. & Plümper, T. (2010). Galton's Problem and Contagion in International Terrorism along Civilizational Lines. *Conflict Management and Peace Science* 27(4): 308-325.
- Neumayer, E. & Plümper, T. (2012). Conditional Spatial Policy Dependence: Theory and Model Specification. *Comparative Political Studies* 45(7): 819-849.
- OECD. (2015). *Is This Humanitarian Migration Crisis Different?* No. 7 OECD, Migration Policy.
- Ottaviano, G.I.P. & Peri, G. (2006). The economic value of cultural diversity: evidence from US cities. *Journal of Economic Geography* 6(1): 9-44.
- Ozden, C., Parsons, C.R., Schiff, M. & Walmsley, T.L. (2011). Where on Earth is everybody? The evolution of global bilateral migration 1960-2000. *World Bank Economic Review* 25(1): 12-56.
- Plümper, T., Troeger, V.E. & Manow, P. (2005). Panel data analysis in comparative politics: Linking method to theory. *European Journal of Political Research* 44(2): 327-354.
- Rahimi, S. & Graumans, R. (2015). Reconsidering the Relationship Between Integration and Radicalization. *Journal for Deradicalization* 5(1): 28-62.
- Sageman, M. (2004). *Understanding Terror Networks*. Philadelphia, PA: University of Pennsylvania Press.
- Sageman, M. (2008). *Leaderless Jihad: Terror Networks in the Twenty-First Century*. Philadelphia, PA: University of Pennsylvania Press.

- Salehyan, I. & Gleditsch, K.S. (2006). Refugees and the Spread of Civil War. *International Organization* 60(2): 335-366.
- Stephan, W.G., Boniecki, K.A., Ybarra, O., Bettencourt, A., Ervin, K.S., Jackson, L.A., et al. (2002). The Role of Threats in the Racial Attitudes of Blacks and Whites. *Personality and Social Psychology Bulletin* 28(9): 1242-1254.
- UN DESA. (2015). *Trends in International Migrant Stock: The 2015 Revision*. United Nations, Department of Economic and Social Affairs, Population Division.
- Ward, M.D. & Gleditsch, K.S. (2008). *Spatial regression models*. Thousand Oaks, CA: Sage Publications.
- Wilson, M.C. & Piazza, J.A. (2013). Autocracies and Terrorism: Conditioning Effects of Authoritarian Regime Type on Terrorist Attacks. *American Journal of Political Science* 57(4): 941-955.
- Young, J.K. & Findley, M.G. (2011). Promise and Pitfalls of Terrorism Research. *International Studies Review* 13(3): 411-431.
- Zanfrini, L. (2016). How Europe can Benefit from Immigration-Related Diversity – a Policy Paper. *Peace Economics, Peace Science and Public Policy* 22(3): 295-326.

Notes

- ¹As an exception, Dreher et al. (2017) find some empirical support for that stricter regulations on migrants' rights do not prevent terror attacks. Yet, this does not address whether national migration policies can be an effective instrument for containing the influence of migration as a 'diffusion vehicle', i.e., Dreher et al. (2017) do not focus on the spatial diffusion of terrorism, but immigration *per se*.
- ² Available online at: <https://tinyurl.com/y89uodsb>.
- ³ Regulations can be further disaggregated into policy fields, i.e., labor migration, asylum, family reunification, and co-ethics (Helbling et al. 2017). Our theoretical arguments apply equally across those policy fields.
- ⁴ This mirrors a recently released report by the UN Special Rapporteur on counterterrorism and human rights. Available online at: <https://tinyurl.com/y7u74rmx>.
- ⁵ For example, Sadiq Khan, the mayor of London, claimed that seven terror plots were foiled in the six months since the Westminster attack (Telegraph, September 25, 2017). Similarly, the head of MI5, Adam Parker, argues that the security service prevented 20 terror plots in four years (Guardian, October 18, 2017). And, German state authorities arrested a Syrian national in October 2017 who was suspected of preparing a terrorist attack (Telegraph, October 31, 2017).
- ⁶ Available online at: <https://tinyurl.com/y89uodsb>.
- ⁷ This mirrors theoretical arguments suggesting that immigration policies affect terrorism specifically when labor immigrants are targeted. Bandyopadhyay & Sandler (2014) find that migration laws and regulations can be employed as an effective counterterrorism tool, e.g., when imposing limits on labor quotas.
- ⁸ We do not distinguish between national and transnational attacks as the theory applies to both cases. In addition, due to the lack of coding in the GTD, we cannot distinguish between terrorist attacks perpetrated by or against migrants. Depending on the source of an attack, though, either domestic or transnational attacks might be more strongly affected. We return to this issue in the conclusion and the Appendix, where we do distinguish between domestic and transnational attacks and employ data from The International Terrorism: Attributes of Terrorist Events (ITERATE) project (Mickolus 1982).

⁹ Migrants tend not to get involved in terrorist activities immediately after their arrival in a host country. According to case-specific narratives, there is usually a longer period of radicalization and, hence, we focus on the stock of immigrants rather than recent entrants (Dreher et al. 2017, 5). Hence, our focus on migrant stocks is based on the radicalization mechanism and migrants' experience in host states, which takes time. In the Appendix, we summarize an estimation based on 'recent entrants', i.e., migration influx, and show that the corresponding results are, in fact, inconclusive.

¹⁰ According to Özden et al. (2011, 14), '[f]or the cases that rely on the Trends in International Migrant Stock database, the number of refugees is subtracted from the totals, with the intention of removing refugees in camps from the total'.

¹¹ Available online at: <http://www.impic-project.eu/>. Unlike previous data, the IMPIC data focus on the absolute levels of restrictions, which allows to compare different countries over time. Helbling & Michalowski (2017) offer a comprehensive review and assessment of available data sets on immigration and citizenship policies.

¹² For example, in terms of possibility to renew a residence permit for e.g., recognized refugees, 0 stands for the possibility to apply right away, 0.1 is the possibility to apply after less than 1 year, 0.2 after 2-4 years, 0.3 after 5-6 years and so on, up to 0.9 which stands for no renewal possible and 1 for no asylum policy. When the item captures sanctions to employers hiring illegal immigrants, the scale is based on the amount of the sanction, which 0 meaning no sanctions.

¹³ Available online at: <https://data.worldbank.org/indicator/ny.gdp.pcap.kd>.

¹⁴ Recall that *Wy: Migrant Inflow* is also based on the number of immigrants from other countries, but weighed by terrorism.

How migration policies moderate the diffusion of terrorism –

Appendix

In this appendix, we provide a series of additional analyses that complement and further support the main article's findings. These include the following sections:

- A.1. An overview of the **sample countries' level of immigration-policy restrictiveness**.
- A.2. In light of earlier work on the determinants of terrorism, we have considered a large set of **additional control variables**.
- A.3. We re-estimated our main model while **controlling for spatial dependencies based on geography**.
- A.4. Given a plausible **self-selection path of migrants**, we have examined whether our main result remains robust conditional on a **high level of external migration restrictions**.
- A.5. Another robustness check analyzes the possibility of a **nonlinear impact of the spatial lag** at different values of the immigration-restriction item.
- A.6. As immigration policies are **not randomly distributed**, we estimated a **simultaneous equation model** that addresses the persistent endogeneity.
- A.7. We examine the **out-of-sample prediction power** of our main specification.
- A.8. We considered a **spatial effect of migration policies**.
- A.9. The operationalization of the spatial lag has been changed from migrant stocks to **migrant influx**.
- A.10. We distinguish between **migration from the European Union (EU) and outside of it**.
- A.11. We disaggregate terrorist attacks into **domestic** and **transnational** ones.
- A.12. Finally, we employ a **different data set on purely international terrorist attacks**.

A.1 Overview of the sample countries' level of immigration policy restrictiveness

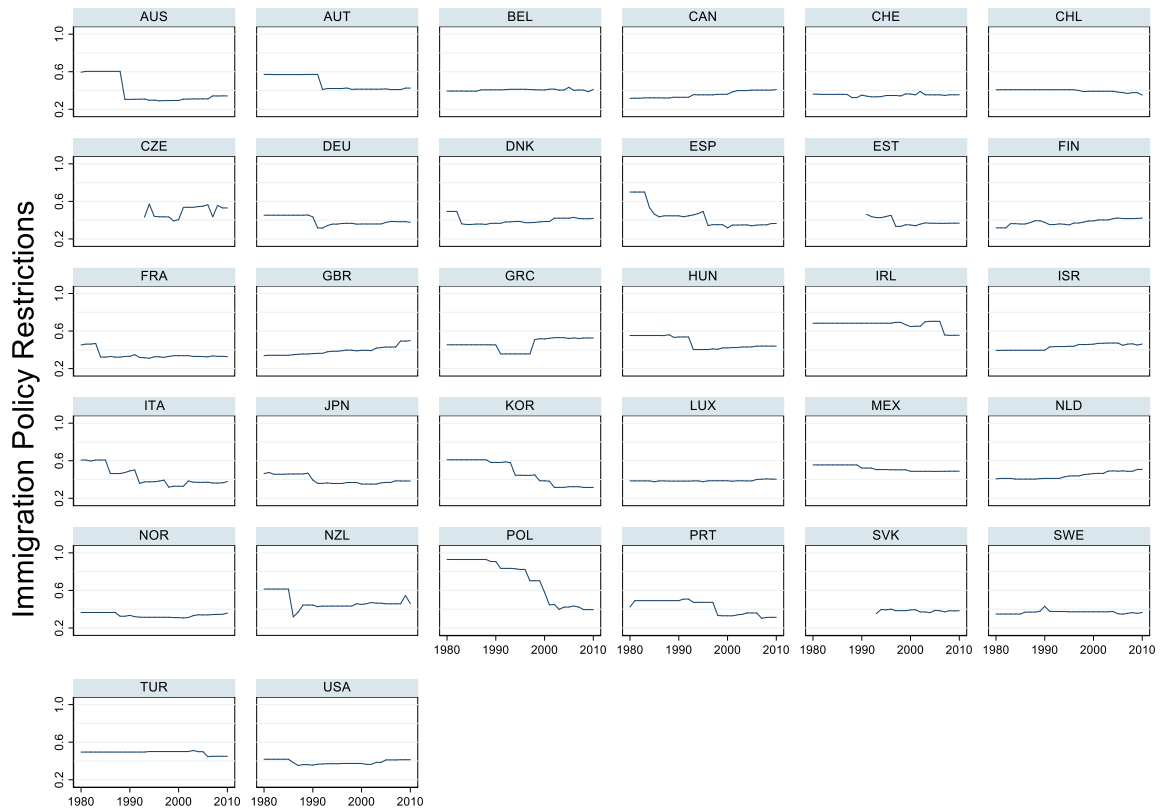


Figure A.1. Level of immigration policy restrictions, 1980-2010.

Note: Country codes are based on ISO 3166-1.

A.2 Additional control variables: Alternative determinants of terrorism

For the models in the main text, we include country fixed effects, year fixed effects, a lagged dependent variable, and a set of alternative predictors of terrorism and, potentially, international migration. This way, we have sought to address the issue of common exposure in an efficient way. The set of substantive controls considered in the main article is based on a more parsimonious approach, however. We address this potential issue in the following by re-estimating the main model after having added a large set of additional controls as suggested in Gaibullov et al. (2017). First, Gaibullov et al. (2017, 15) recommend controlling for variables that capture a state's involvement in foreign policy. To this end, there are items on alliance ties with the US, interventions, and the involvement in international crises. The alliance variable is binary and based on the Correlates of War Formal Alliance data set (Gibler 2008). Using data from Pickering and Kisangani (2009), the intervention variable counts a state's number of military interventions in a given year. The crisis item is again dichotomous as it captures a country's involvement in any international crisis in the last three years (coded as 1; 0 otherwise). We use the International Crisis Behavior project's data for this.

Moreover, there is *Durable*, which codes the age of the current regime. The higher the value of that item, the more stable a state's regime; this variable is taken from the Polity IV project (Marshall & Jaggers 2015). We also employ a measure on a country's general level of

instability based on the Systemic Peace Project: this ordinal variable codes episodes of civil-war intensity, ranging from 0 (no civil war) to 7 (severe civil war). In order to control for a state's capabilities to address these and related security-relevant phenomena, we further consider the *Composite Index of National Capacity* (CINC) score from the Correlates of War project.

Table A.1. The moderating effect of immigration restrictions: Additional controls

	Model A1
Lagged Dependent Variable	0.452** (0.034)
Wy: Migrant Inflow	0.823* (0.426)
Immigration Policy Restrictions	1.601 (0.991)
Wy: Migrant Inflow * Immigration Policy Restrictions	-1.143* (0.639)
Democracy	-0.003 (0.023)
Total Migration Population	0.029 (0.029)
GDP per capita (ln)	-0.977*** (0.297)
Population (ln)	0.532 (0.741)
Economic Globalization	0.013* (0.007)
Alliance	0.073 (0.169)
Interventions	0.068 (0.060)
International Crisis	0.057 (0.085)
Durable	-0.006 (0.015)
Civil War	0.000 (0.000)
National Capability	45.786*** (15.724)
Political Globalization	0.004 (0.005)
Discriminated Population	2.905 (2.174)
Ethnic Fractionalization	0.000 (0.000)
Constant	-3.874 (9.247)
Observations	720
Country fixed effects	Yes
Year fixed effects	Yes
Prob>F	0.000

Note: Standard errors in parentheses; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

In the main text's models, we already control for economic globalization based on data from Dreher (2006). Following Gaibulloev et al. (2017), we also incorporate political globalization in the following. This variable captures states' integration into the global network of international organizations (Dreher 2006). Finally, two measures are used to control for the influence of ethnic cleavages and instability. The first, *Discriminated Population*, measures the percentage of the population that is excluded from the political decision-making process as defined by the Ethnic Power Relations data.¹ The second variable, *Ethnic Fractionalization*, addresses ethnic diversity within a state as it measures the probability of two randomly drawn individuals from a country belonging to two different ethnic groups (see Fearon & Laitin 2003).

Table A.1 summarizes our findings when including these additional controls. Most importantly for our study, the main finding remains robust in that *Wy: Migrant Inflow * Immigration Policy Restrictions* still exerts a negative and statistically significant effect on the level of terrorism. Furthermore, most of the newly added items are statistically insignificant at conventional levels. The only exception is *National Capability*. This finding suggests that more powerful countries are more often the target of terrorist attacks and, hence, have a higher level of terrorism. In terms of the other control variables, their rather poor performance may be driven by the fixed effects we include as these limit our ability to make inferences about time-invariant or slow-moving variables. Coefficients are then not identified or difficult to estimate with precision.

A.3 Spatial dependencies via geographical proximity

We re-estimated our main model while including two additional spatial lags (on at a time) that are based on the geographical distance between states. Including a geography-based spatial lag next to the immigration spatial variable is important for at least two reasons. First, a geography-based spatial lag may be considered a 'catch-all' variable, i.e., we control for any transnational influences we do not directly focus on in the theory, although they might be present. These transnational influences could be about common cultural relationships, regional dynamics, or security issues and are based on what Tobler (1970, 236) calls the first law of geography: 'everything is related to everything else, but near things are more related than distant things'. Second, the previous literature on terrorism diffusion largely focuses on geographically defined spatial ties. Demonstrating that our core result holds while including a geography spatial control adds to the substantive contribution of our research and increases the confidence in our findings.

First, we consider contiguity for creating the first geography-based spatial item, i.e., each element w_{ij} in its binary connectivity matrix measures whether states i and j are contiguous by land (1) or not (0). Land contiguity is defined as the intersection of the homeland territory of i and j either through a land boundary or a river. We employ the Correlates of War Project's Direct Contiguity data (Stinnett et al. 2002). In the absence of a common contiguity tie between two countries, w_{ij} takes the value of 0. Second, we created a weighting matrix based on the capital-to-capital distance (i.e., great circle distance between capital cities in kilometers) between countries (Gleditsch & Ward 1999).² We re-scaled this second matrix so that higher values signify lower distances for the values of w_{ij} .

Table A.2 summarizes the findings of this robustness check. Our main result remains robust to the inclusion of the new spatial lags. Moreover, both geography-based items are positively signed and significant. This supports earlier research on terrorism 'hot spots' (e.g., Braithwaite & Li 2007). Against this background, terrorism does cluster in space and

geographical proximity facilitates that terrorism travels from one unit to another; however, a genuine diffusion effect via migration also exists, which can be moderated by states' immigration policies. This is demonstrated by the negative and significant estimate for the interaction of *Wy: Migrant Inflow* and *Immigration Policy Restrictions* in both Model A2 and Model A3.

Table A.2. The moderating effect of immigration restrictions: Geography spatial lags

	Model A2	Model A3
Lagged Dependent Variable	0.432*** (0.031)	0.465*** (0.030)
Wy: Contiguity	0.151*** (0.039)	
Wy: Inverse Distance		0.171** (0.560)
Wy: Migrant Inflow	0.811** (0.370)	0.839** (0.381)
Immigration Policy Restrictions	1.958** (0.894)	2.064** (0.901)
Wy: Migrant Inflow * Immigration Policy Restrictions	-1.312** (0.582)	-1.283** (0.585)
Democracy	0.006 (0.011)	0.004 (0.011)
Total Migration Population	0.019 (0.018)	0.017 (0.018)
GDP per capita (ln)	-0.444** (0.218)	-0.529** (0.220)
Population (ln)	1.349*** (0.464)	1.199*** (0.465)
Economic Globalization	0.010** (0.005)	0.010* (0.005)
Constant	-12.546** (6.148)	-11.049* (6.198)
Observations	911	911
Country fixed effects	Yes	Yes
Year fixed effects	Yes	Yes
Prob>F	0.000	0.000

Note: Standard errors in parentheses; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

A.4 The self-selection of immigration: High external restrictions on migration

We also explored whether our main result remains robust when focusing on those states with overly restrictive external immigration policies. The rationale behind this is based on a plausible self-selection mechanism of migrants: all else equal, immigrants are more likely to move to those states that have less restrictive entry policies (see also Breunig et al. 2012; Dreher et al. 2011; Alarian & Goodman 2017; Helbling et al. 2017). More restrictive entry regulations and controls may deter migrants from moving to such states in the first place. One way to control for this mechanism is restricting the sample to those countries that are characterized by overly restrictive policies. Model A4 does precisely this: using the information in the IMPIC (Helbling et al. 2017, 4), this model only comprises that subset of countries with a score of more than 0.5 on external control restrictiveness (see Table 1 in the main text).

First, note the decrease in the number of observations, which shows that about 33 percent of all country-years in the original sample are characterized by more ‘benign’ policies and, thus, are omitted from the analysis now. Second, the multiplicative term *Wy: Migrant Inflow * Immigration Policy Restrictions* remains negatively signed and statistically significant. Hence, even when allowing for the possibility of a migrant self-selection mechanism, we obtain empirical evidence for the claim that more restrictive immigration policies can lower the likelihood of terrorism diffusing via migration.

Table A.3. The moderating effect of immigration restrictions: High external control restrictions

	Model A4
Lagged Dependent Variable	0.459*** (0.038)
Wy: Migrant Inflow	0.962* (0.496)
Immigration Policy Restrictions	1.366 (1.321)
Wy: Migrant Inflow * Immigration Policy Restrictions	-1.361* (0.823)
Democracy	-0.021 (0.021)
Total Migration Population	0.043 (0.036)
GDP per capita (ln)	0.468 (0.407)
Population (ln)	1.027 (0.911)
Economic Globalization	0.005 (0.007)
Constant	-8.035 (12.163)
Observations	612
Country fixed effects	Yes
Year fixed effects	Yes
Prob>F	0.000

Note: Standard errors in parentheses; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

A.5 A non-linear impact of *Wy: Migrant Inflow*?

Hainmueller et al. (2018) remind us that multiplicative interaction models are based on two crucial requirements. On one hand, there must be a sufficient amount of ‘common support’ to reliably compute the conditional marginal effects, i.e., cases for which the values of the moderating variable are actually observed. Second, the interactive effect is linear to the extent that, in our case, the impact of *Wy: Migrant Inflow* changes at a constant rate with the moderating variable on immigration restrictions. We meet the first requirement, which is demonstrated via the rug plots in the main text’s graphs. These plots depict the distribution of *Immigration Policy Restrictions* and emphasize that there is a sufficient number of data points available.

The second requirement of a linear effect has not been discussed yet, but we address this in the following. Hainmueller et al. (2018) suggest a scatterplot as a diagnostic tool for assessing whether a linear effect does exist or not: that is, they recommend splitting the

sample into equally sized groups based on the moderating variable, i.e., *Immigration Policy Restrictions*. In turn, one has to plot the outcome against the key independent variable, i.e., *Wy: Migrant Inflow*, while imposing a linear regression line and a lowess smoothing line. If a linear effect exists, the linear regression line should not significantly depart from the lowess line across the different groups as identified by the moderator values.

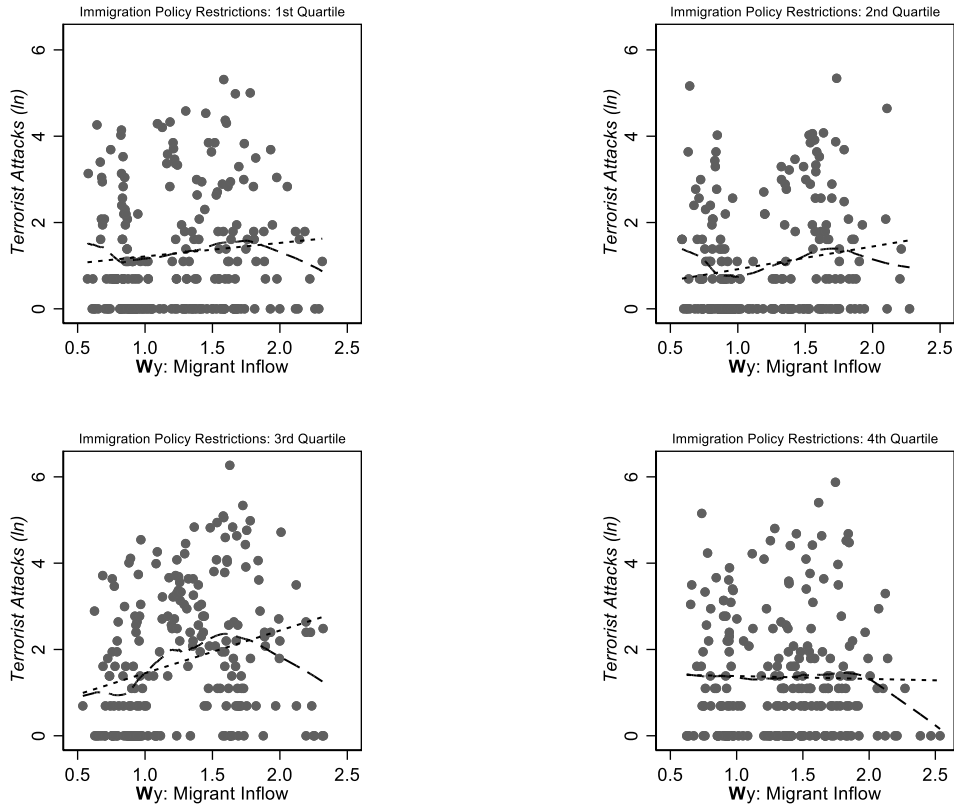


Figure A.2. Terrorism against *Wy: Migrant Inflow* at different levels of restrictiveness. Short-dashed lines pertain to linear fit, while long-dashed lines signify lowess smoothing.

As shown in Figure A.2, we have divided the sample into four equally sized groups in light of the distribution of *Immigration Policy Restrictions*. The graphs emphasize, however, that the linear regression lines largely overlap with the lowess lines, and they are not statistically significantly different from each other. Therefore, the two lines are close to each other and partly fully overlap in any cluster of the data, which supports the claim that ‘both conditional expectation functions are well approximated with a linear fit’ (Hainmueller et al. 2018, 6). We also examined, nevertheless, a non-linear impact in our main model by adding a squared term of *Wy: Migrant Inflow* to the specification and interacting this as well with *Immigration Policy Restrictions*. The corresponding finding is – as expected against the background of Figure A.2 – virtually identical to what we present in the main text.

A.6 Simultaneous equation model

We have calculated a model using three-stage least-squares regression (3SLS) to determine whether our estimates might be biased due to simultaneity. Koopmans & Michalowski (2017) or Avdan (2014), among others, show that immigration policies are not randomly distributed,

but driven systemically by certain factors in possibly diverse ways. To this end, we implemented a two-stage model that allows for a simultaneous influence of the level of terrorism on migration restrictions and the other way round, while modelling which factors shape migration restrictions. In that way, we control for the non-random assignment of migration policies as well. We explored possible specifications by running multiple 3SLS models similar to that shown in the main article, based on the same theoretical rationale. In 3SLS, instruments for endogenous variables are generated by regressing each such variable on all exogenous variables in the system. Here, the endogenous variables are *Terrorist Attacks (ln)* and *Immigration Policy Restrictions*. For the determinants of the latter, we select country and year fixed effects as well as temporally lagged values of *Terrorist Attacks (ln)*, regime type, the total number of migrants in a country, income, and population.

Table A.4. The moderating effect of immigration restrictions: Simultaneous equation model

	Model A5 Terrorist attacks (ln)	Model A5 Imm. policy. restrict.
Lagged Dependent Variable	0.468** (0.029)	0.859*** (0.015)
Terrorist Attacks (ln)		0.000 (0.001)
Wy: Migrant Inflow	1.051*** (0.353)	
Immigration Policy Restrictions	1.942** (0.866)	
Wy: Migrant Inflow * Immigration Policy Restrictions	-1.250** (0.563)	
Democracy	0.000 (0.011)	-0.001* (0.000)
Total Migration Population	0.015 (0.018)	0.000 (0.001)
GDP per capita (ln)	-0.483** (0.211)	-0.027*** (0.009)
Population (ln)	1.067** (0.444)	0.013 (0.018)
Economic Globalization	0.011** (0.005)	
Constant	-8.871 (5.886)	0.177 (0.231)
Observations	911	911
Country fixed effects	Yes	Yes
Year fixed effects	Yes	Yes
Prob>F	0.000	0.000

Note: Standard errors in parentheses; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Model A5 in Table A.4 is then a re-estimation of the main model in the article using 3SLS. Note that the variables included in the equations must differ in some aspects for the model to be identified. Those items included in one, but not the other equation then influence the other stage's outcome indirectly through their dependent variable. Two findings are particularly worth discussing. First, despite modeling simultaneity directly, our core result in the *Terrorist Attacks (ln)* equation remains robust. Second, more democratic and wealthier states are less restrictive in the policies they implement. This also mirrors the results in, e.g., Koopmans & Michalowski (2017) to a large degree.

Table A.5. Out-of-sample prediction: 4-fold cross-validation

	Full model	Constrained model
Estimation 1	0.8278 (0.4734)	0.8290 (0.4747)
Estimation 2	0.8152 (0.4590)	0.8196 (0.4640)
Estimation 3	0.8184 (0.4627)	0.8206 (0.4652)
Estimation 4	0.8081 (0.4510)	0.8151 (0.4589)
Estimation 5	0.8046 (0.4472)	0.8254 (0.4705)
Estimation 6	0.8094 (0.4525)	0.8169 (0.4610)
Estimation 7	0.8120 (0.4554)	0.8236 (0.4685)
Estimation 8	0.8170 (0.4610)	0.8081 (0.4510)
Estimation 9	0.8044 (0.4469)	0.8141 (0.4578)
Estimation 10	0.8021 (0.4444)	0.8064 (0.4492)
Mean	0.8119 (0.4554)	0.8179 (0.4615)

Note: Table entries are Theil's U values with mean squared prediction errors (MPSE) in parentheses.

A.7 Out-of-sample prediction power: 4-fold cross-validation

We assess the predictive power of the interaction term. A model may fit well within a given sample, but could perform worse when confronted with new data. This can potentially undermine making correct and useful predictions (see Ward et al. 2010). To explicitly consider out-of-sample heuristics, we conducted a 4-fold cross-validation quasi-experimental exercise, which we repeated 10 times for the full model in the main text (Model 3) and the same model while omitting *Wy: Migrant Inflow, Immigration Policy Restrictions*, and their interaction. First, we randomly divide our sample into four segments of about the same size. We then used three random segments to estimate the parameters, while the fourth segment was retained for assessing the predictive power of either Model 3 in the main text or the constrained model on the pooled subsets. Therefore, there were three data segments to build the model and create predictions, while a last (randomly chosen) part was not considered for estimating the model in the first place, but merely employed for assessing the predictive power. To do so, we provide two goodness-of-fit measures in this out-of-sample setup. First, Theil's U is the square root of the ratio between the sum of squared prediction errors of a model and the sum of squared prediction errors of a naïve model, i.e., a 'no-change prediction' where the level of immigration support in $t-1$ corresponds to the level of support in t . If Theil's U is larger than 1, the model performs worse than the naïve model; values of Theil's U smaller than 1 indicate that the 'theoretically informed model' performs better than the naïve specification. Second, the mean squared prediction error (MSPE) pertains to the expected value of the squared difference between the observed values of the outcome variable and the predicted ones.

We calculated both measures for Model 3 from the main text and a constrained model that omits our core explanatory variables. As indicated above, we repeated the cross-validation 10 times and, thus, obtained 10 different values for Theil's U and the MSPE, respectively. We calculated the average values for both model-fit statistics to arrive at global values. The results are summarized in Table A.5. For the fully specified model, the average Theil's U across all 10 iterations of the cross-validation is 0.812, while the corresponding MSPE stands at 0.455; for the constrained model, the average Theil's U is 0.818 with a MSPE of around 0.462. Thus, the predictive power of our core variables of interest is established as the prediction error tends to increase when omitting *Wy: Migrant Inflow, Immigration Policy Restrictions*, and their interaction.

Table A.6. A spatial influence of migration policies

	Model A6
Lagged Dependent Variable	0.468*** (0.030)
Wx: Immigration Policy Restrictions	5.380 (4.225)
Wy: Migrant Inflow	1.056*** (0.367)
Immigration Policy Restrictions	1.955** (0.901)
Wy: Migrant Inflow * Immigration Policy Restrictions	-1.257** (0.586)
Democracy	0.000 (0.011)
Total Migration Population	0.016 (0.018)
GDP per capita (ln)	-0.484** (0.219)
Population (ln)	1.070** (0.462)
Economic Globalization	0.011** (0.005)
Constant	-11.540 (7.211)
Observations	911
Country fixed effects	Yes
Year fixed effects	Yes
Prob>F	0.000

Note: Standard errors in parentheses; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

A.8 A spatial influence of migration policies?

It may be plausible that migration policies that are rather restrictive in one country have consequences for neighboring countries (see also Helbling & Kalkum 2018). This may be an important factor insofar as migrant networks could redirect and funnel migration to destinations with more favorable systems, e.g., migrants may opt for states with more favorable immigration regimes. The analysis on more restrictive countries above controls for the possibility that migrants may opt for states with more favorable immigration regimes; it also addresses the possibility to restrict the sample to countries with greater migrant stock as

the share of the migrant stock of the total population is lower (as compared to the full sample) by three percentage points in this estimation. Yet, the empirical analysis in the main text does not account for the spatial dimension of migration laws.

To do that, Table A.6 summarizes a model that incorporates the average level of immigration restrictions (the variable we use in the main article) across all countries per year (which, in effect, is an unweighted spatial variable). Considering this item does not affect the substance of our core result as the interaction of migration stock and immigration policies remains negative and statistically significant at conventional levels.

Table A.7. The moderating effect of immigration restrictions: Migration influx

	Model A7
Lagged Dependent Variable	0.472 ^{***} (0.030)
Wy: Migrant Influx	0.062 (0.044)
Immigration Policy Restrictions	0.294 (0.409)
Wy: Migrant Influx * Immigration Policy Restrictions	-0.141 (0.105)
Democracy	-0.004 (0.011)
Total Migration Population	0.009 (0.018)
GDP per capita (ln)	-0.300 (0.210)
Population (ln)	0.879 [*] (0.449)
Economic Globalization	0.009 [*] (0.005)
Constant	-6.851 (5.987)
Observations	911
Country fixed effects	Yes
Year fixed effects	Yes
Prob>F	0.000

Note: Standard errors in parentheses; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

A.9 Short-term migration influx

The theoretical argument of our manuscript also draws on Sageman's radicalization model. To this end, our discussion centers on the radicalization of disaffected, marginalized, and dissatisfied migrant communities – i.e., migrants' experience in host states and, eventually, this means that migrants are radicalized within destination states. However, according to the empirical analysis in the main text, we do not necessarily know whether terrorism diffuses because migrants are radicalized within destination states or if some of the already radicalized individuals migrate to destination states. Terrorism may diffuse from terror prone countries because there is a larger portion of already-radicalized individuals within migrant stock from these countries.

As discussed in the main text, our focus on migrant stocks is based on the radicalization mechanism and migrants' experience in host states, which takes time. In turn, when

subscribing to this claim, an analysis on more short-term changes in the migration population should produce results that differ from those discussed in the main text. Against this background, Table A.7 summarizes a robustness check, where the spatial variable is now based on the *yearly changes* of the foreign-born population ('influx'), which captures then more short-term mechanisms, including potentially those where migrants arrive in a state and then directly pursue terrorism there. As expected, though, we do not find much empirical support for this rationale in the analysis: the variable on migration influx is statistically insignificant, as is the interaction term with migration policies. Hence, although many policymakers, the media, or public institutions tend to emphasize the vulnerability to terrorism given short-term migrant influx, our results show that short-term migration fluctuations as captured by yearly changes in migration populations neither directly link to the threat of terrorism diffusion nor is the latter modulated by migration policy restrictions. It appears that policies only moderate the effects of long-term migrant trends as discussed in the main text.

Table A.8. The moderating effect of immigration restrictions: EU vs. non-EU immigration

	Model A8	Model A9
	EU	Non-EU
Lagged Dependent Variable	0.472*** (0.030)	0.467*** (0.030)
Wy: Migrant Inflow	-0.112 (0.232)	0.508*** (0.197)
Immigration Policy Restrictions	0.097 (0.421)	1.120* (0.613)
Wy: Migrant Inflow * Immigration Policy Restrictions	0.013 (0.515)	-0.893** (0.433)
Democracy	-0.006 (0.011)	-0.007 (0.011)
Total Migration Population	0.008 (0.019)	0.013 (0.018)
GDP per capita (ln)	-0.268 (0.210)	-0.348* (0.211)
Population (ln)	0.916** (0.447)	0.875* (0.446)
Economic Globalization	0.013** (0.006)	0.014** (0.006)
Constant	-7.723 (5.952)	-7.073 (5.950)
Observations	911	911
Country fixed effects	Yes	Yes
Year fixed effects	Yes	Yes
Prob>F	0.000	0.000

Note: Standard errors in parentheses; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

A.10 Migration from and outside the European Union

The available data do not allow making a distinction between 'skilled' and 'unskilled' immigrants due to the lack of coding. Yet, making this distinction may be desirable: as we exclude refugees from the spatial variable, the stock of foreign-born populations likely comprises mostly economic migrants. Although we cannot exclude, e.g., political migrants as

such, when subscribing to the economic-migrant pattern, migration restrictions likely have differing effects on migrants conditional on skill levels.

One approach to test for this expectation, despite the lack of coding in the original data, is to distinguish between EU and non-EU foreign-born populations. As the migration data include information on source and destination country, we coded whether a sending state was a member of the European Union in a specific year or not. Given our sample of mostly European, advanced economies, intra-European migration is more likely to capture skilled economic migration flows rather than (unskilled) migration patterns due to other, non-economic reasons.

All other specifications of the main text's core model remain unaltered – we merely use the EU vs. non-EU distinction to change the operationalization of the spatial lag's weighting matrix. Table A.8 summarizes our results. The effect we identify in the main article remains robust when focusing on migration stocks from *non-EU* countries. This seems to suggest that unskilled labor migrants encounter economic hardships that further marginalize them, leaving them prone to radicalization. However, immigration policy restrictions have little moderating impact when focusing on *EU* migration stocks (Model A8). This underlines again that merely increasing the level of restrictiveness of migration laws without much differentiation in their design and blunt generalizations of foreign-born populations is unlikely to hamper the diffusion of terrorism.

Table A.9. The moderating effect of immigration restrictions: Domestic vs. transnational terrorism

	Model A10	Model A11
	Domestic	Transnational
Lagged Dependent Variable	0.470*** (0.030)	0.421*** (0.032)
Wy: Migrant Inflow	1.084*** (0.406)	0.050 (0.597)
Immigration Policy Restrictions	1.382 (0.868)	0.702 (0.715)
Wy: Migrant Inflow * Immigration Policy Restrictions	-0.971 (0.671)	-0.620 (0.850)
Democracy	-0.001 (0.011)	0.003 (0.011)
Total Migration Population	0.018 (0.019)	0.001 (0.017)
GDP per capita (ln)	-0.493** (0.226)	-0.142 (0.195)
Population (ln)	0.863* (0.463)	0.503 (0.429)
Economic Globalization	0.010* (0.005)	0.004 (0.005)
Constant	-6.323 (6.129)	-4.340 (5.815)
Observations	911	911
Country fixed effects	Yes	Yes
Year fixed effects	Yes	Yes
Prob>F	0.000	0.000

Note: Standard errors in parentheses; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

A.10 Domestic vs. transnational terrorism

We changed the specifications for the dependent variable and the spatial lag to such an extent that we separately study domestic terrorism and transnational terrorist attacks. Domestic terrorism pertains to those cases where the nationalities of the perpetrators and the victims are the same (Enders et al. 2011, 321). Conversely, international or transnational terrorism is based on a comparison between the location of the attack and the nationality of the target(s)/victim(s). If a perpetrator group attacked a target of a different nationality, terrorism is not of a domestic, but a transnational dimension. Making the distinction between domestic and transnational terrorism affects the operationalization of the outcome variables, the temporally lagged dependent variables, and the spatial variable. Table A.9 summarizes our findings.

On one hand, the direction of the variables' impact is unchanged. A significant impact cannot be directly derived from the table's models, however, and we thus depict the marginal effects of the domestic and transnational spatial variable, respectively, according to immigration restrictions in Figure A.3. As demonstrated there, our results for domestic terrorism are similar to what we report in the main text: there is a positive and statistically significant effect of Wy : *Migrant Inflow*, but this item then becomes insignificant for rather restrictive immigration regimes. For transnational terrorism, however, the interaction effect is statistically insignificant across the entire range of *Immigration Policy Restrictions*.

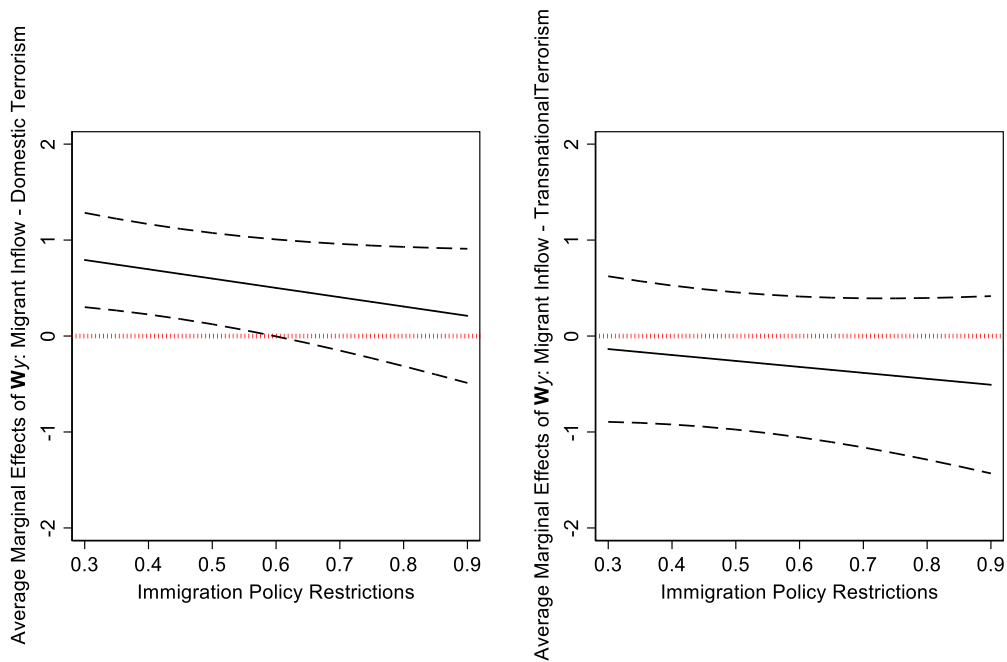


Figure A.3. Domestic vs. transnational terrorism.

Graph shows average marginal effects of Wy : Migrant Inflow for various values of *Immigration Policy Restrictions*, while holding all other covariates constant at their means; dashed lines signify 90 percent confidence intervals; red dotted line marks marginal effect of 0.

There are several reasons for why the findings are inconclusive for transnational, but not for domestic terrorism. First, as discussed in Bove & Böhmelt (2016) migration flows may also be linked to domestic forms of terrorism, not necessarily or exclusively transnational

terrorism. For example, migration also increases the exposure of domestic groups to prospects for mobilization by the same or a different group in the country of migration origin, thus making emulation more likely to emerge. Also, migrants from a country prone to terrorist attacks could more easily be willing and able to support domestic terrorist groups (see e.g., Adamson 2006). Large migration flows facilitate the exchange of ideas, and terrorist groups in the host country often lack the relevant experience to organize terrorist activities, especially when they share the same goals and aspiration of the home-grown terrorists.

Table A.10. The moderating effect of immigration restrictions: ITERATE

	Model A12	Model A13	Model A14
	Foreign	ITERATE	Foreign – GTD
Lagged Dependent Variable	0.033*** (0.010)	0.022*** (0.005)	0.023*** (0.008)
Wy: Migrant Inflow	0.553 (0.740)	0.340* (0.213)	0.937 (1.079)
Immigration Policy Restrictions	1.413 (1.775)	3.400** (1.442)	5.134** (2.462)
Interaction	-0.006 (1.073)	-0.445 (0.306)	-2.691* (1.586)
Democracy	0.011 (0.036)	0.023 (0.021)	-0.000 (0.036)
Total Migration Population	-0.120** (0.054)	-0.024 (0.041)	-0.116** (0.053)
GDP per capita (ln)	0.622 (0.848)	-1.327*** (0.513)	0.126 (0.779)
Population (ln)	4.237*** (1.100)	3.278*** (0.883)	3.116*** (1.047)
Economic Globalization	0.001 (0.016)	-0.000 (0.012)	-0.001 (0.016)
Constant	-57.919*** (16.843)	-27.269** (12.672)	-38.845** (15.364)
Observations	911	911	911
Country fixed effects	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes
Prob>F	0.000	0.000	0.000

Note: Standard errors in parentheses; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Second, anti-migration groups in the destination country, rather migrants, may be perpetrators of violence. As a reaction to the arrival of foreign-born populations who may have left their country of origin due to unstable environments, anti-migration groups could stage acts of terrorism. Strictly speaking, this would not only count as diffusion of domestic terrorism via migration flows in the first place, but also be suitable for a moderating influence of migration restrictions as such. Yet, the lack of coding in the data prevent us from a more thorough analysis, and this emphasizes again the need for more accurate data, coding, and information on terrorist targets and perpetrators of violence.

Finally, the diffusion of terrorism may not exclusively occur at one level, i.e., domestic-domestic or transnational-transnational. For instance, it would be difficult to imagine, in light of our theoretical framework why migrants would be a vehicle for the diffusion of international terrorism in their home country to their new state of residence. Instead, what

may have been experienced at home could take both forms, transnational or domestic, and what then occurs in the new country of residence is characterized as domestic or transnational. The most comprehensive analysis against this background should thus not distinguish between domestic and transnational terrorism, which is how we designed the empirical analysis in the main text. We return to this issue in the next section.

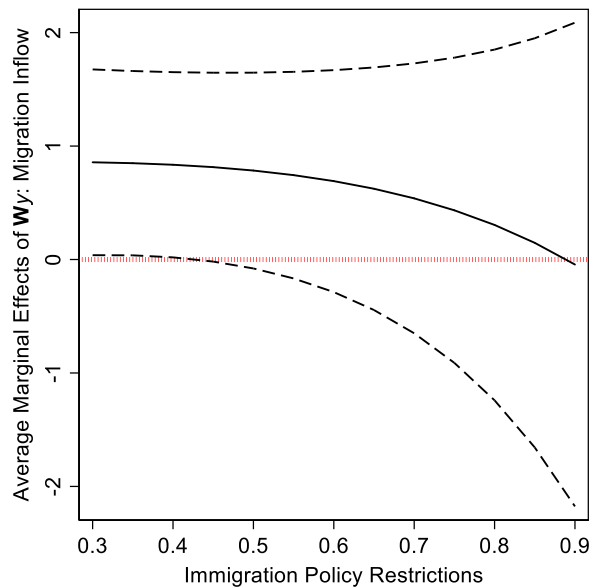


Figure A.4: The moderating effect of immigration restrictions: ITERATE (Model A13)
 Note: Graph shows average marginal effects of W_y : Migrant Inflow for various values of *Immigration Policy Restrictions*, while holding all other covariates constant at their means; dashed lines signify 90 percent confidence intervals; red dotted line marks marginal effect of 0.

A.12 Examining terrorism diffusion via ITERATE

We also examined our findings when using a different data set. The models in Table A.10 of are based on database on International Terrorism: Attributes of Events (ITERATE) (Mickolus 1982). ITERATE comprises information on *exclusively international* terrorism only, domestic events are not included. We present three models: Model A12 is based on foreign terrorism, i.e., where the nationality of the perpetrator(s) differs from the country an attack took place. Model A13 does not make the distinction but uses all available information from ITERATE to create the dependent variable, the temporally lagged variable, and the spatial item. Finally, due to the lack of coding of domestic events in ITERATE, Model A14 uses information on foreign terrorism (as in Model A12) only for the outcome variable and the temporally lagged dependent variable, but not for the spatial lag. Instead, the spatial lag in Model A14 is based on the GTD and comprises both domestic and international attacks.

When only analysing ‘foreign’ terrorism, i.e., for all relevant model components and, thus, also for countries of origin and destination of migrants, the results are inconclusive. Migrants, under those circumstances, are hardly a vehicle for terrorism to diffuse, while immigration policies have little moderating impact. However, consider Model A13 and Model A14. The former produces results that are virtually identical to those discussed in the main text – as the

interaction term is insignificant, we also plot the marginal effects in Figure A.4, which further supports this conclusion. This result seems to stress in our view that accurate information on perpetrators and targets of terrorism are necessary as this result may well be driven by migrants being the target of violence. This mirrors our discussion from the previous section.

In terms of the latter, i.e., Model A14, the findings are almost identical to what we report in the main article, although the outcome variable is based on different data and only comprises international acts of terrorism conducted by foreigners. Ultimately, the diffusion of terrorism is less based on a strict distinction of domestic and transnational terrorism (in the country of origin and in the new state of residence). But our results emphasize that the source and target of terrorism matter very much, and migrants are either the source or the target of violence. More, and more fine-grained data are necessary to examine this important question adequately, which points yet to another avenue for future research.

References for the appendix

- Adamson, F. (2006). Crossing Borders: International Migration and National Security. *International Security* 31(1): 165-199.
- Alarian, H. & Goodman, S. (2017). Dual Citizenship Allowance and Migration Flow: An Origin Story. *Comparative Political Studies* 50(1): 133-167.
- Avdan, N. (2014). Controlling Access to Territory: Economic Interdependence, Transnational Terrorism, and Visa Policies. *Journal of Conflict Resolution* 58(4): 592-624.
- Bove, V. & Böhmelt, T. (2016). Does Immigration Induce Terrorism? *Journal of Politics* 78(2): 572-588.
- Braithwaite, A. & Li, Q. (2007). Transnational Terrorism Hot Spots: Identification and Impact Evaluation. *Conflict Management and Peace Science* 24(4): 281-296.
- Breunig, C., Cao, X. & Luedtke, A. (2012). Global Migration and Political Regime Type: A Democratic Disadvantage. *British Journal of Political Science* 42(4): 825-854.
- Dreher, A. (2006). Does Globalization Affect Growth? Evidence from a New Index of Globalization. *Applied Economics* 38(10): 1091-1110.
- Dreher, A., Krieger, T. & Meierrieks, D. (2011). Hit and (They Will) Run: The Impact of Terrorism on Migration. *Economics Letters* 113(1): 42-46.
- Enders, W., Sandler, T. & Gaibulloev, K. (2011). Domestic vs. transnational terrorism: Data, decomposition, and dynamics. *Journal of Peace Research* 48(3): 319-337.
- Fearon, J. & Laitin, D. (2003). Ethnicity, Insurgency, and Civil War. *American Political Science Review* 97(1): 75-90.
- Gaibulloev, K., Piazza, J. & Sandler, T. (2017). Regime Types and Terrorism. *International Organization* 71(3): 491-522.
- Gibler, D. (2008). *International Military Alliances, 1648-2008*. Washington, DC: CQ Press.
- Gleditsch, K.S. & Ward, M. (1999). A Revised List of Independent States since 1816. *International Interactions* 25(4): 393-413.
- Hainmueller, J., Mummolo, J. & Xu, Y. (2018). How much should we trust estimates from multiplicative interaction models? Simple tools to improve empirical practice. *Political Analysis*: Forthcoming.
- Helbling, M., Bjerre, L., Römer, F. & Zobel, M. (2017). Measuring Immigration Policies: The IMPIC Database. *European Political Science* 16(1): 79-98.
- Helbling, M. & Kalkum, D. (2018). Migration Policy Trends in OECD Countries. *Journal of European Public Policy* 25(12): 1779-1797.

- Koopmans, R. & Michalowski, I. (2017). Why Do States Extend Rights to Immigrants? Institutional Settings and Historical Legacies across 44 Countries Worldwide. *Comparative Political Studies* 50(1): 41-74.
- Marshall, M. & Jaggers, K. (2015). *Polity IV Project: Political Regime Characteristics and Transitions, 1800-2014. Users' Manual*. College Park, MD: University of Maryland.
- Mickolus, E. (1982). *International terrorism: Attributes of terrorist events, 1968-1977 (ITERATE 2)*. Inter-university Consortium for Political and Social Research.
- Pickering, J. & Kisangani, E. (2009). The International Military Intervention Dataset: An Updated Resource for Conflict Scholars. *Journal of Peace Research* 46(4): 589-599.
- Stinnett, D., Tir, J., Schafer, P., Diehl, P.F. & Gochman, C. (2002). The Correlates of War Project Direct Contiguity Data, Version 3. *Conflict Management and Peace Science* 19(2): 58-66.
- Tobler, W. (1970). A Computer Movie Simulating Urban Growth in the Detroit Region. *Economic Geography* 46(2): 234-240.
- Ward, M., Greenhill, B. & Bakke, K. (2010). The Perils of Policy by p-Value: Predicting Civil Conflicts. *Journal of Peace Research* 47(4): 363-375.

¹ Available online at: <https://icr.ethz.ch/data/epr>.

² Available online at: <http://ksgleditsch.com/data-5.html>.