

Remittances, Terrorism, and Democracy*

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September 21, 2023

Abstract

How do remittances affect domestic terrorism? Past work argues that remittances increase groups' resources and increase terrorism. However, we argue that the effect of remittances depends on political institutions. Within democracies, remittances can help groups overcome barriers to legitimate politics and reduce terrorism's allure. Within autocracies, however, fewer legitimate political opportunities exist, and remittances may lead to more terrorism as it remains an alternative and available political outlet. We find that remittances are associated with less (more) domestic terrorism within democracies (autocracies) and use additional mechanism tests to demonstrate that the competitive aspects of democracy help explain these trends.

*Thanks to Cassy Dorff, Chelsea Estancona, Michael Findley, Michael Gibilisco, and Brandon Prins for their helpful remarks. This paper also benefited from the participants and audiences at Texas A&M, and the 2022 International Studies Association's annual meeting. Yohan Park thanks European Research Council for support of this research (grant agreement No. 101002240). All errors are our own.

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1 Introduction

Do remittances increase domestic terrorism? A growing body of research on remittances, defined as the money that migrants send to their home states, shows that remittances affect many forms of political activity and violence, such as protests, civil conflict, and terrorism. However, the direction and reasons for these effects are unclear. On the one hand, remittances are unearned income, and as such are expected to stabilize governments, build economies, and reduce incentives to engage in violence (including terrorism) against the state (Ahmed 2012; Regan and Frank 2014). On the other hand, remittances can weaken the ties between individuals and the state, which can undermine incumbent support. This reduced support may lead to democratization and/or protests in authoritarian regimes (Escribà-Folch, Meseguer and Wright 2015, 2018) and raise the likelihood of intrastate violence (Elu and Price 2012; Mascarenhas and Sandler 2014; Miller and Ritter 2014).

In this paper, we reconcile some of these opposing expectations by considering the role of political institutions in the relationship between remittances and domestic terrorism. Specifically, we argue that remittances can lead to either more or less terrorism depending on the available outlets for non-violent political expression. Remittances allow groups to build resources and increase their political activities regardless of regime type (Brady, Verba and Schlozman 1995).¹ However, whether this increased activity results in more terrorism or not, depends on the availability and accessibility of legitimate political institutions.²

Past work frequently argues that groups would prefer to use peaceful, legitimate politics over relatively ineffective terrorism (e.g., Crenshaw 1981; Gleditsch and Polo 2016). Within democracies, groups weigh the costs needed to succeed at legitimate politics versus the cheapness of terrorism. When resources are low (i.e., small levels of remittances) inexpensive terrorism is an attractive option for political expression. However, as resources grow (i.e., remittances increase) peaceful politics becomes increasingly attractive and domestic terrorism declines.

Within autocracies, however, we expect the opposite effect. Broadly speaking, few institutional outlets for effective political opposition exist within autocratic states regardless of a group's re-

¹Throughout we think of groups as a politically-motivated organizations or movements that may decide to use legitimate politics, political violence/terrorism, or a combination of these strategies to achieve their goals.

²We focus on terrorism when discussing violent alternatives to politics as it covers a wide range of interesting political actions and is among the most commonly studied forms of political violence.

sources.³ This environment makes ineffective, but available, options like terrorism more attractive. In other words, as remittances increase to autocracies, we still expect an increase in political activity but in the form of terrorism. This understanding reflects the general scholarly consensus and conventional wisdom about the relationship between remittances and terrorism (e.g., [Mascarenhas and Sandler 2014](#)).

This focus on the trade-off between terrorism and peaceful politics builds on a rich tradition that considers how access to political institutions can reduce terrorism ([Aksoy and Carter 2014](#); [Wade and Reiter 2007](#)). However, this line-of-thought has been called into question, with [Foster, Braithwaite and Sobek \(2013\)](#) finding that institutional access is insufficient to alleviate domestic terrorism within democracies, as groups frequently lack the resources necessary to enact policy changes through elections. By focusing on remittances, which vary both within and across states, we provide a new resource-based mechanism to explain differences in domestic terrorism within and across regime types.

We test these different expectations using an interaction model with two-way fixed effects. Within autocracies, we find that a 100 USD/person increase in remittances is associated with an average of about 2.4 additional domestic terrorist attacks within a given year, while in democracies we see an average decrease of nearly 4 domestic terrorist attacks for the same increase in remittances. The differences between democracies and autocracies are robust to various measurements and modeling strategies.

There are, of course, many factors that affect the flows of remittances and how migrants use them, and there are other possible competing explanations for why remittances are associated with more (less) terrorism in autocracies (democracies). Likewise, regime type is a relatively coarse measure of the accessibility of institutions. As such, we follow up our main analysis with a series of mechanism tests to dig deeper into which aspects of democracy connect remittances to terrorism. Here, we use different measures of institutional constraints as a placebo to show that the competitive aspects of democracy, rather than institutional constraints, better explain the data and the observed trends. We follow this analysis with additional looks at how specific features (proportional representation and legislative fractionalization) affect these results, along with interactions

³We discuss the institutional variation within autocracies below and in Appendix D.2.

with ethnic fractionalization. This additional analysis places some interesting scope conditions on our main results: the pacifying effect of remittances within democracies is most pronounced in countries with either more a homogeneous population or a proportional representation (PR) system. Indeed, the only democracies where we find that remittances do not have a pacifying effect are ones with very diverse ethnicities *and* more closed (non-PR) institutions. In these cases, remittances may not provide enough resources to overcome the effects of competing groups and inaccessible institutions.

With these results, we contribute to policy and scholarly discussions. For policy, we find that concerns about remittances to democratic countries with active terrorist groups may be overstated. As more remittances come into these countries, we find that domestic terrorism decreases, on average, suggesting that democracies, particularly those with PR systems, may want to encourage remittances as this may channel groups toward electoral politics and away from violence. For the literature, we provide new evidence that open and democratic institutions can alleviate domestic terrorism so long as groups have the resources to advance their concerns through legitimate political institutions.⁴ We also contribute to a growing body of works examining how regime type and institutions affect the political consequences of remittances such as corruption (Tyburski 2014), public spending (Easton and Montinola 2017), and protests (Escribà-Folch, Meseguer and Wright 2018).

2 Remittances and politics

While remittances largely flow from individuals to households, there are many ways that they can move to violent and non-violent political groups. This movement can be through direct donations to a group, indirect donations that pass through friendly organizations like charities, or by recipients

⁴It is not inherently obvious how this argument extends to non-conventional political acts other than terrorism (e.g., riots, protests, civil conflicts). Indeed, while remittances may increase the likelihood of protests within some autocracies (e.g., [Escribà-Folch, Meseguer and Wright 2018](#)), they are not necessarily associated with decreases in these other alternatives to electoral politics within democracies. Various forms of non-conventional politics require substantial mobilization efforts and may have differing likelihoods of success. Thus, by strengthening organizational capacity and facilitating mobilization, remittances might encourage groups to strategically employ certain forms of non-conventional political actions within democracies. A fruitful avenue of future work may be to consider how other “weapons of the weak” tactics may be alleviated or promoted by remittances or other resources.

spending in ways that benefit a group (e.g., shopping at friendly businesses) (Freeman 2011, 469-70). Migrants know this and use remittances to shape domestic politics within their home countries (Itzigsohn and Villacrés 2008; O'Mahony 2013).

Motivation for political actions also flows with remittances. Emigrants share and discuss the economic and political conditions of their new location with friends or relatives back home. This communication can highlight relative deprivation within the home country, increase grievances against the incumbent, and raise support for opposition groups/parties (Miller and Ritter 2014). At the micro level, Córdova and Hiskey (2015) finds that remittances raise political interest and efficacy among individual recipients and increase the likelihood of political involvement.

Politics, however, is not limited to these legitimate institutions and channels. Domestic terrorism is a political reality within many countries, and as such, there is no reason to suspect that the political impact of remittances is limited to parties and elections. However, it is *a priori* unclear what the relationship between remittances and terrorism will look like. On the one hand, remittances may reduce this form of political violence. For example, remittances can mitigate the effects of a recession on recipients or otherwise raise their standard of living, and as such they can reduce individual incentives for violence (Regan and Frank 2014). Additionally, terrorism is largely ineffective for political change (e.g., Fortna 2015; Jones and Libicki 2008); with more resources, more effective options may emerge.

On the other hand, remittances, are unearned household income that weaken clientelistic ties between citizens and the state (Pfutze 2014). Loosening these ties, particularly in dominant/one-party states, can weaken reliance on and loyalty to the state (Escribà-Folch, Meseguer and Wright 2015). Additionally, remittances can enhance a group's organizational capacity, thereby facilitating political violence, including protests, civil conflict, and terrorism (Elu and Price 2012; Escribà-Folch, Meseguer and Wright 2018; Mascarenhas and Sandler 2014; Miller and Ritter 2014). Indeed, scholars who look specifically at terrorist funding frequently mention remittances as a key financial resource for terrorists, as individuals convert this unearned income into violent politics (e.g., Clarke 2015; Freeman 2011).

However, the relationship between remittances and political violence may actually go in both directions. In particular, political access theories suggest that the relationship between remittances and domestic terrorism should be conditional on political institutions. Groups have political goals,

and more resources, say in the form of remittances, will encourage groups to take actions in pursuit of these goals. As noted, remittances can benefit groups by weakening clientelistic ties between citizens and the state. Loosening these ties makes flows to anti-regime groups even more likely as individuals become willing and able to express their values, ideologies, or political goals (Escribà-Folch, Meseguer and Wright 2015; O'Mahony 2013; Piazza 2018). But the venue for these actions may change based on institutions. As resources increase, electoral competition may become more attractive to groups in countries where this opportunity exists, but in places where electoral opportunities are either not present or not competitive, terrorism may continue to be an attractive strategy. We describe this conditional relationship in more detail, below.

Before proceeding, we note that of course, not all remittances aid opposition groups and parties; some remittances benefit incumbents. As Ahmed (2012) notes, regimes receive some benefits from remittances and can use this increase in resources to finance patronage or otherwise buy support.⁵ However, the marginal benefit of gaining remittances is likely greater for opposition groups/parties, as incumbents tend to already enjoy a resource advantage (Escribà-Folch, Meseguer and Wright 2015). In developing countries with weak democratic institutions, incumbency advantage often translates into electoral dominance (Jensen and Wantchekon 2004). Given these advantages, additional income from remittances likely has little impact on pro-incumbent political outcomes. For groups with little access to state resources, however, remittances are valuable additional income that helps them pursue more ambitious goals and adjust their strategies accordingly.

We also wish to highlight that our expectations are on how remittances affect terrorism within specific regime types and institutions. As such, we do not take on the debate about whether democracies experience higher *levels* of terrorism relative to autocracies (e.g., Eyerma 1998; Li 2005). It may be the case that democracies experience higher levels of terrorism due to press freedom or civil liberty protections, but we remain agnostic as to what the baseline level of terrorism is within

⁵It is also important to note that different countries have different policies and mechanisms for capturing or diverting remittances away from citizens and towards the state. In the estimation, country fixed-effects are used to account for unobserved state-level heterogeneity in remittance laws and structure. Likewise, following almost all past work that considers the political and economic consequences of remittances, we focus on informal remittances as measured by the World Bank as they are less susceptible to these kinds of state interventions (e.g., Escribà-Folch, Meseguer and Wright 2015, 576).

a country. Instead, our focus is on how these levels change in response to remittances and whether the direction of this change is different across regimes and institutional characteristics. Indeed, the results below suggest depending on the remittance levels, democracies may experience more or less terrorism than autocracies (see Appendix C).

In focusing on terrorism we set aside other forms of unconventional politics like civil conflict/war, riots, or protests. For all the reasons discussed above, it is reasonable to suspect that remittances may increase the likelihood of other forms of political violence in autocracies, though these effects may vary by the exact form of violence. Within democracies, however, the effects of remittances on these other forms of violence are unclear. One thing that makes terrorism unique relative to conflict/war or protests is that it is generally acknowledged to be ineffective but cheap, as such we may not expect the same substitution effects to emerge in other forms of violence that have different levels of efficacy. Open conflict is perhaps more effective, requires a larger substantial investment, and is perhaps be deterrable by state capability/strength. Given these differences, it is unclear whether remittances will have the same effects on these different outcomes within democracies. Previous work identifies cases where remittances enable militant groups to sustain organized political violence beyond terrorism, such as the Kosovo Liberation Army aided by the “Homeland Calling” fund ([Adamson 2005](#)). Additionally, others find that remittances are related to an increase in both protests within autocracies ([Escribà-Folch, Meseguer and Wright 2018](#)) and insurgencies ([Miller and Ritter 2014](#)). However, future work should focus on further disentangling the different effects that remittances may have on different unconventional political actions, how those effects vary by regime, and how the cost and efficacy of different tactics influence these decisions.

2.1 Remittances and terrorist attacks in democracies

While recent work and conventional wisdom suggest that remittances will increase domestic terrorism (e.g., [Mascarenhas and Sandler 2014](#)), it is unclear that terrorism is the best political use for these incoming resources. Specifically, terrorism may be an appealing political outlet to groups within some states, but in other states, their goals may be better served by working within the system. This substitution effect has a long history in both scholarly and policy understandings of terrorism within democracies, dating at least as far back as [Crenshaw \(1981\)](#) who, in foundational

work, argues that terrorism is an attractive political tool primarily in situations where actors lack the opportunities to express or address their grievances through peaceful means.⁶

On the most basic level, this argument suggests that as institutional politics becomes more feasible, terrorism becomes a less attractive political tool. After all, terrorism is an overall ineffective tool for obtaining meaningful policy changes (Fortna 2015; Jones and Libicki 2008), and thus switching to legitimate outlets makes sense so long as groups have the resources to compete effectively. Additionally, opposition groups are better protected from adverse policies when they have access to and participate in the official decision-making processes (Saideman et al. 2002). In this sense, we can think of terrorism as an inferior choice for political change that groups only want to select when legitimate political options are either unavailable or inaccessible.

This argument builds on a range of work on democracy and terrorism, which has found that democracies with more permissive electoral institutions have fewer terrorist groups, fewer instances of political violence or terrorist attacks, and a lower likelihood of terrorist group formation (Aksoy and Carter 2014).⁷ These points are supported by Gleditsch and Polo (2016) who find that improved access to politics for discriminated groups within democracies are associated with decreases in ethnic terrorism, as groups are able to use the more effective tools of legitimate politics.

This exclusion argument also matches several of the best known cases of domestic terrorism within democracies. For example, the Provisional Irish Republican Army (PIRA) became a major actor in Northern Ireland during the late 1960s in response to decades of economic and political

⁶Chenoweth (2013) provides examples of how this view appears in policy statements by both the George W. Bush and Obama administrations which both argued that promoting democratic institutions and political inclusion was important for curbing terrorism, with then-Secretary of State Hillary Clinton stating that “ ‘[democracies] offer constructive outlets for political grievances, they create . . . and provide alternatives to violent extremism’ ”(quoted in Chenoweth 2013, 354). Likewise, the Clinton administration’s efforts in creating the Good Friday Agreement in Northern Ireland and their support for the Palestinian Authority as a hope for channeling terrorism into politics, suggests that this substitution logic was also present among policymakers then.

⁷Based on institutional political access, we conceptualize a democracy as a polity with open institutions that allow actors to compete with peaceful politics. An autocracy is a polity with closed institutions that limit access to legitimate politics. We recognize that a number of developing countries have weak democratic institutions and little inclusive political environment for minority groups, which often causes political instability. Our results might be thus driven by the characteristics of these developing countries. To address this concern, we split our sample into developing and developed countries and reestimate our models for robustness checks.

discrimination against the Catholic population. In the face of this exclusion, the PIRA offered a political outlet for republican expression that was not feasible through legitimate channels at the time due to a combination of demographics and poverty.⁸

A direct look at how institutional constraints and political discrimination lead to domestic terrorism comes from [Gleditsch and Polo \(2016\)](#), who argue that institutional reforms promoting openness, participation, and inclusion should induce a substitution effect that reduces terrorism by marginalized ethnic groups. They point to specific examples in Corsica and Northern Ireland when making this case. In both of these situations an expanded ability to express grievances within a political system helped alleviate terrorism from these groups ([2016, 209-10](#)). In a broader empirical analysis of ten ethnic groups, they find that an improvement in a group's political status (e.g., no longer discriminated against) is associated with reductions in domestic terrorism. In contrast, when individuals or groups find themselves shut out of political institutions (i.e., their political status within the country decreases), terrorism becomes an attractive means to influence politics and incidents increase. Likewise, sudden political liberalizations were followed by changes in how the Corsican National Liberation Front (FLNC) and Basque Homeland and Liberty (ETA) pursued their goals ([Bourne 2018; De la Calle and Fazi 2010](#)), with both groups shifting towards non-violence and electoral politics. Eventually, the ETA agreed to a long-term ceasefire and officially disbanded in favor of a purely political solution ([Bourne 2018, 51](#)).

However, access does not inherently translate into ability, a split highlighted by [Foster, Braithwaite and Sobek \(2013\)](#), who argue against access theories of domestic terrorism by noting that marginalized groups struggle to make an impact even when institutions are open. Specifically, they argue that more open institutions can actually increase domestic terrorism when the underlying society is very fractionalized.⁹ Within highly fractionalized societies, expansive political access can further marginalize the smallest and politically weakest groups by diluting their influence through

⁸This is a similar trajectory to Hezbollah in Lebanon, where the group transitions from only using terrorism to a combined terrorist and electoral strategy when elections became available. Likewise, the Tupamaros in Uruguay were a far-left guerrilla group before transitioning into a political party after the collapse of military dictatorship and the start of democracy ([Weinberg 1991](#)).

⁹Likewise, [Chenoweth \(2010\)](#) finds that highly competitive democracies are more prone to terrorism because of the political gridlock and impotence generated by having too many groups compete for political influence.

competition against too many other political actors. The excess of access effectively locks them out of the political process despite their ability to enter it.

Similarly, [Ghatak, Gold and Prins \(2019\)](#) consider how levels of domestic terrorism are affected by the interaction of open institutions with political discrimination. When groups are politically discriminated against within democracies, they are more likely to turn to terrorism as even open political institutions are not responding to or addressing their needs. Persistent discrimination weakens the effectiveness of open institutions for members of the discriminated groups, while simultaneously allowing them the legal freedoms to organize. The basic rights provided within democracies combined with poor representation within the legitimate political space, they argue, create conditions that make terrorism attractive ([2019](#), 442-4). They find that across several conceptualizations of democracy, increased political exclusion tends to increase levels of domestic terrorism, even in democracies with more inclusive institutions.

To achieve their political goals in legitimate ways, groups need to organize, obtain representation through elections, and overcome any institutional gridlock, fractionalization, or discrimination. These processes require resources, making it difficult for marginalized groups to effectively engage in party politics. In addition, fundraising abilities and campaign spending are positively associated with electoral success, with many scholars noting that poor fundraising makes it increasingly difficult for groups to achieve their desired outcome through elections (e.g., [Shin et al. 2005](#)). This lack of resources means that many marginalized groups remain poorly represented in democracies and fail to draw public attention to their grievances. The barriers to enter legitimate politics constrain *de facto* opportunities for them to participate in politics and thus encourage them to express their voices through violence, even when democratic institutions provide them with *de jure* opportunities.

How do remittances factor into these decisions to choose legitimate politics over terrorism? At both the individual and group levels remittances can help overcome institutional and discriminatory barriers to enter and succeed at legitimate politics. At the group level, remittances represent funding sources, allowing marginalized groups to increase their organizational capacity ([Burgess 2014](#); [O'Mahony 2013](#)). In particular, the external funding can make groups more competitive in elections. Past work finds that relatively small increases in campaign spending can be particularly helpful for non-incumbent parties and that opposition spending is often more effective than incumbent party spending ([Moon 2006](#)). Likewise, even if the amount of money or the size of the group

is insufficient to build a new political movement, increased wealth may be associated with better political representation or responsiveness from existing parties and institutions (e.g., [Elkjær and Klitgaard 2021](#)).

At the individual level, past work has linked remittances to increased political activity among the recipients. Emigrants can directly affect the voting preferences of their friends or family members in their home countries. [Córdova and Hiskey \(2015\)](#) find that interactions with overseas migrants motivate those remaining at home to have greater political interests and efficacy in local politics, and thus cultivate higher levels of political engagement. Additionally, senders may themselves become more actively involved in shaping domestic electoral outcomes, as in the case of a Salvadoran migrant organization in the US that publicly encouraged over 20,000 members to convince their relatives in El Salvador to cast their votes for the prominent leftist candidate ([2015, 1461](#)). Beyond rallying supporters for their own political parties, remittances increase recipients' civic engagement in local politics and strengthen party attachment. These individual-level effects can also culminate in macro-level effects that shift attitudes and beliefs of those without direct ties to overseas migrants ([Pérez-Armendáriz and Crow 2010](#)).

Both these group- and individual-level effects demonstrate the political power of remittances. However, there is little work on how the political effects of remittances affect decisions around the use of terrorism within democracies. The above works on political access highlight that just the existence of open institutions is insufficient, and that groups also need to overcome additional barriers like discrimination or other forms of institutional/structural political exclusion. The methods for overcoming these barriers, however, are not always explicit. For sure, there are many ways for groups or individuals to weaken these barriers, but money is very likely to be among them. As such, increases in this basic resource can explain within-country shifts in a group's political strategy even when official institutions do not change.

Overall, these relationships between resources and political access lead us to expect that remittances will decrease the incidence of domestic terrorist attacks within democracies. As an external funding source, remittances help groups strengthen their organizational capacity and thus increase the probability that they can address their grievances through the electoral process. This process can occur either by terrorist groups adjusting their tactics and promoting their political wings (if available) or by individuals reallocating their donations to political groups that are seen as more

viable as remittances increase. As [Weinberg \(1991\)](#) notes, a primary motivation for terrorism stems from the gap between a group's goals and the perceived prospect of achieving these goals. Remittances reduce this gap by increasing the group's ability to engage in legitimate politics, leading to our first hypothesis.

Hypothesis 1. *Within democracies, an increase in remittances will be associated with a decrease in the average number of domestic terrorist attacks.*

Returning to the PIRA example, some aspects of the case are consistent with this logic. Early in the conflict, the PIRA largely drew resources from the local, economically and politically disadvantaged Catholic population, and republicans found violence to be the only reasonable outlet for their political message. However, with the growth of organizations like the Irish Northern Aid Committee (NORAIID), which funneled money from Irish immigrants in the United States to Northern Ireland, the PIRA's resource base grew dramatically ([Wilson 1994](#)).

During this period we see both a growth in resources and a greater willingness by republicans to engage with legitimate politics more. Notably, as funds grew throughout the 1980s, Sinn Féin, the PIRA's political wing, withdrew its prohibition on contesting elections, and there was a growing acceptance among republican leadership that engaging in elections had to be a key component of their strategy.¹⁰ Additionally, the violent campaign waged by the PIRA became increasingly controlled and subordinate to republican electoral ambitions ([Neumann 2005](#), 964).

Given that the internal decisions of terrorist groups are largely unknown, it is difficult to say how much (if at all) we can ascribe the PIRA's transition to the dual strategy of armed struggle and political engagement to their improved fundraising. For example, the attention brought on by the hunger strikes of the early 1980s appears to have been key to both increased funding and the decision to engage in more legitimate politics. However, this simplified timeline highlights some key mechanisms laid out above and provides some circumstantial evidence. Likewise, a 1988 internal report by Sinn Féin was used by republican leadership to funnel more NORAIID resources and American donors away from violence and toward the political process ([Smyth 2020](#), 38-9).

¹⁰Some guesses place the PIRA's income in 1978 and 1990 at about 1 and 5 million GBP, respectively ([Horgan and Taylor 1999](#)); a five-fold increase over the decade. Likewise, many of the same people handled finances for both Sinn Féin and the PIRA ([Horgan and Taylor 2003](#)), and thus the monetary distribution between terrorism and electoral politics was subject to at least some central planning.

Republican leader Gerry Adams, in particular, strongly believed that political competition was the more effective use of incoming resources and was a key figure in promoting the use of politics during these period when resources allowed Sinn Féin to be more competitive at the polls (Smyth 2020, 48).

Note that in the PIRA example, it is the overarching republican leadership making the shift to more electoral engagement and allocating their growing resources accordingly. In this particular case, the overlap between the PIRA and Sinn Féin means there could be coordination and planning in allocation decisions. However, the reasoning still holds if the focus is on individual remittance recipients deciding to donate money differently as remittances increase. When remittances are low, donations/spending to violent groups still provides a cheap (if ineffective) way to engage in politics; as remittances increase, donations to political parties may become more attractive to individual donors.

Another point worth noting is that much of the work discussed above specifically consider ethnic fractionalization or politically excluded groups as a primary driver of domestic terrorism within democracies (e.g., Ghatak, Gold and Prins 2019; Gleditsch and Polo 2016). This is a common and useful way to think about the sources of organized domestic terrorism within democracies and matches many of the most well-known groups such as the PIRA. As such, we may be interested in how ethnic heterogeneity affects the relationship between remittances and terrorism within democracies. We return to this point below when we consider how different aspects of democracy and the interactions of these institutions with fractionalization affect the relationship between remittances and terrorism.

2.2 Remittances and terrorist attacks in authoritarian regimes

Remittances may help groups enhance their organizational capacity and promote their political activity within non-democracies too. Material support from a diaspora or other community living abroad is generally known to augment opposition group resources (Asal, Conrad and White 2014, 952; Piazza 2018). Following resource models of political engagement (e.g. Brady, Verba and Schlozman 1995), we expect that more resources lead to increased political activity. From this point of view, remittances to both democracies and autocracies are designed to be a form of “political investment” by external actors (Escribà-Folch, Meseguer and Wright 2018; O’Mahony 2013).

Building on this political investment argument, past work finds that within autocracies, remittances can diminish citizens' reliance on the state's public spending (Adida and Girod 2011) and loosen the clientelistic ties between citizens and the regime (Escribà-Folch, Meseguer and Wright 2015, 2018). This effect is sometimes referred to as a liberating effect, wherein citizens become less economically dependent on the regime and more willing to invest in their own political preferences and ideological goals. This effect implies that remittances can undermine regime support and facilitate an opposition group's political mobilization.¹¹ However, within autocracies, these increases in political ability may not easily translate into increased participation in institutional politics.

Because most authoritarian regimes provide few, if any, institutional channels for political change, the liberating effect of remittances means that regime opponents are more likely to express their views through non-institutional politics. Indeed, political protests become more likely in non-democracies as the inflow of remittances grows, implying that opposition groups with external funding sources enhance their mobilization capacity and express their grievances outside available within-state political institutions (Escribà-Folch, Meseguer and Wright 2018). Violent mobilization is also more likely when the regime blocks opportunities for non-violent mobilization or legitimate participation in the political process (Asal, Conrad and White 2014; Cunningham et al. 2017). As such, more remittances can promote the adoption of violent politics like terrorism in cases where institutional outlets are unavailable, leading to our second hypothesis.

Hypothesis 2. *Within autocracies, an increase in remittances will be associated with an increase the average number of domestic terrorist attacks.*

However, autocracies are not a monolith, they exhibit substantial institutional variation that may affect terrorist decisions. For example, Aksoy, Carter and Wright (2012) show that terrorist groups are more likely to emerge in non-democracies without an official political arena (e.g. a competitive legislature). Likewise, Wilson and Piazza (2013) find that party-based autocracies

¹¹Despite the possibility that remittances promote protests and terrorism, most authoritarian regimes are often reluctant to regulate remittance inflows for at least two reasons. First, remittances are extra household income that can alleviate poverty and promote economic consumption, investment, and growth. Second, remittances may reduce the need for public spending, as they enable households to get services on their own; this shift allows authoritarian leaders to divert resources toward patronage spending (Adida and Girod 2011; Ahmed 2012). Attempts to regulate remittances can affect these benefits to the state.

experience less terrorism than other types of autocracies. This difference emerges, they argue, because the party system allows some room for opposition groups to coerce or co-opt the peaceful political institutions. In other words, a small non-violent outlet can induce some groups to substitute institutional politics for terrorism. In contrast, the most closed autocratic systems (military regimes) have higher rates of domestic terrorism. As a result, within electoral autocracies we may find trends similar to those within democracies. We consider this institutional variation within autocracies in Appendix D.2 by looking at differences between electoral autocracies, closed autocracies, and democracies. We find that remittances have a pacifying effect similar to democracies in electoral autocracies, further supporting the idea that the presence of electoral institutions can lead to less terrorism as remittances increase.

2.3 Alternative explanations

Before moving on, there are several alternative frameworks and explanations we wish to consider. First, remittances may reduce voter turnout in developing democracies, implying that remittances generally disincentivize the public from participating in institutional politics (e.g., [Dionne, Inman and Montinola 2014](#); [Goodman and Hiskey 2008](#)). This argument and finding, however, is not inherently inconsistent with our main argument. The impact of remittances on electoral participation has been shown to be conditional on several factors, such as clientelistic structures ([Pfutze 2014](#)) and crime rates ([López García and Maydom 2021](#)). By weakening ties between citizens and the regime, remittances may dissuade turnout more among ruling party supporters than opposition voters. As such, the negative impact of remittances on voter turnout may lead to an overall gain in opposition vote share, which is in line with the participation mechanism proposed above. Indeed, we consider this argument more below, where we find that remittances are associated with an increase in opposition vote share.

Second, remittances may lead to improved living conditions that may be misattributed by the public to good governance and thus reduce political grievances and activity. If this is true, we may expect that terrorism decreases across all regime types as citizens grow complacent with additional resources. In this case, we might expect that remittances decrease terrorism across regime types (i.e., support for Hypothesis 1 but not 2).

Similarly, remittances may have very different aggregate effects if they benefit the state more

than the group through the increase in taxable income. In these cases, the effect of remittances on terrorism/political action may be the result of a different, albeit complementary, path wherein how the state chooses to spend this surplus affects terrorism (e.g., repression versus social services). We consider this explanation in Appendix D.5.

Finally, the above discussion raises a question: Are remittances enough to overcome the numerical and structural disadvantages these groups face? To put this another way, resources are certainly not the only things standing between groups considering terrorism and their political goals. Country-specific institutions, culture, and history surely play a part in determining which groups are marginalized and may place, at least short run, limits on how much political impact increased remittances can have within specific countries. Empirically, we side-step some of these concerns through the use of country fixed-effects across the main models. These fixed-effects control for unchanging within-country aspects like a history of racism or specific cultural norms that are static over time. Beyond that however, we include various control variables that reflect political and economic discrimination.

3 Data and methods

The dependent variable comes from the Global Terrorism Database (GTD), where we count the number of domestic terrorist attacks within a given country-year. We identify a domestic attack as one where the perpetrator’s nationality matches the attack location. While this is not the only way to identify domestic terrorism it correlates very highly with other efforts to code only domestic attacks and has enjoyed increased use in recent years (e.g. [Davis and Zhang 2019](#)).¹²

The primary independent variables are remittances and regime type. As [O’Mahony \(2013\)](#) notes, the ideal data would distinguish among politically motivated remittances and be able to pinpoint the exact actors receiving them. Unfortunately, such detailed remittance data do not exist. Following her and others, we rely on remittance data from the World Bank’s World Development Indicators (WDI), but as [O’Mahony \(2013\)](#) demonstrates, distinctly political attributes of remittances are captured by these aggregate-level data. For example, even in the aggregate, remittances

¹²Formerly, the most commonly used data project for identifying domestic terrorism in the GTD was [Enders, Sandler and Gaibulloev \(2011\)](#), but their data end in 2007. Our approach correlates with their data at 0.84 for the overlapping years. As a robustness check, we also test our hypotheses with their data in the online appendix. Additionally, we interpolate missing terrorism data for 1993.

rise in response to and affect elections (2013, 812-820). Following [Escribà-Folch, Meseguer and Wright \(2015\)](#), we focus on per capita remittances (in hundreds of 2010 U.S. dollars per person) received by a particular country in a given year, and we consider an alternative approach based on remittances as a share of GDP in the online appendix.¹³

Regime types are measured using polity2 scores, where for ease of interpretation we construct regime-type dummies for democracy ($\text{polity2} \geq 7$) and anocracy ($\text{polity2} \in (-6, 6)$).¹⁴ This leaves autocracy ($\text{polity2} \leq -7$) as the reference category across all the models. We interact the democracy and anocracy dummies with remittances, which means that the baseline coefficient on remittances reflects the effect that remittances have within autocracies. The dummy variable setup also accommodates recent findings showing that anocratic regimes experience more terrorism than other regime type and that linear democracy measures may be inappropriate for studying domestic terrorism ([Gaibullov, Piazza and Sandler 2017](#)). Enough institutional variation exists across anocracies that it is thoroughly unclear what effect we would expect remittances to have within these states. Further, our primary interest is on the differences between democracies (open, competitive institutions) and autocracies (closed, uncompetitive institutions), which makes anocracies an essential, but theoretically ambiguous, control variable. Within anocracies it is difficult to form sharp theoretical predictions because the institutional variation covers both near-democracies and near-autocracies. To the extent that political competition is a viable outlet, we may expect some to be more like democracies, but if competition is not viable, then they will be closer to autocracies. The exact direction of this trend will likely depend more on which anocracies are in the sample rather than any principled expectations.

Following almost all past work on terrorist attacks, we use negative binomial regression to model the number of domestic terrorist attacks. Additionally, we employ country and year fixed effects.¹⁵ The former account for any country-level heterogeneity that affects the baseline level of

¹³In the Online Appendix, we consider various transformations of the remittances per capita measure, including logged, square root, and quadratic detrending.

¹⁴We also consider alternative measurements based on the Varieties of Democracy (V-Dem) dataset, linear and quadratic polity scores, and different polity cut points in Appendix D.2.

¹⁵Country dummies account for any (observable and unobservable) time-invariant factors that explain why any given country experiences more or less domestic terrorism than another and provide important credibility to regression results based on time-series-cross-sectional data.

domestic terrorism within each country, and the latter account for changes in security environment overtime.

Beyond the fixed effects, we include a host of control variables. To proxy for the state’s ability to fight terrorism we include logged measures of military personnel and GDP per capita from the Correlates of War’s National Materials and Capabilities (NMC) index and WDI, respectively. We also include standard controls for logged population and economic growth from the WDI. Additionally, terrorism is associated with media coverage and democracy, as such we include a dummy variable for a free press based on [Li \(2005\)](#) with missing values filled-in using Freedom House data. Likewise, the number of ongoing civil conflicts is likely to affect levels of within-country terrorism along with regime type and remittance levels. To measure ongoing conflicts, we count the number of active internal conflict as recorded by the Uppsala Conflict Data Program (UCDP).

Another set of relevant controls should reflect within-country grievances, such as economic or political inequality and ethnic fractionalization. Regarding economic grievances we consider both GINI coefficients from the World Bank and a measure of negative horizontal inequality (NHI) from [Buhaug, Cederman and Gleditsch \(2014\)](#). The GINI coefficient is a measure of economic inequality that ranges from 0-1 with larger numbers representing higher levels of inequality, while the NHI records the ratio of total country-year GDP per capita to the average GDP per capita over the territory occupied poorest ethnic group. Regarding political inequality, we use data from the Ethnic Power Relations (EPR) data, which records the political status and relative size of ethnic groups within each country. With this data, we measure the proportion of the country’s population that EPR labels as either excluded from political power or discriminated against.¹⁶

3.1 Summary statistics

The data are an unbalanced panel of 99 countries from the years 1971-2013.¹⁷ All the independent variables are lagged one year to reduce concerns about reverse causation or simultaneity bias.

¹⁶These three inequality measures have various levels of missingness but are rarely changing within-countries. We use linear interpolation to fill in missing values for these three measures.

¹⁷Countries that never experience terrorism are not included as the maximum likelihood estimate of their country-specific constant is $-\infty$. We also consider pooled, random effects, and Mundlak estimators (as in [Crisman-Cox 2021](#)) in the online appendix, which all allow for these all-zero countries to be included.

Table 1: Summary statistics for main variables

Variable	Min	Mean	St. Dev.	Max	Source/Measurement
Domestic attacks	0.00	12.98	44.68	570.00	GTD
Remittances per capita	0.00	0.97	1.70	15.96	World Bank
Democracy	0.00	0.44	0.50	1.00	Polity IV
Anocracy	0.00	0.38	0.48	1.00	Polity IV
Mil. per. pc (logged)	0.00	0.36	0.28	1.89	COW-NMC
Population (logged)	12.79	16.53	1.50	21.02	World Bank
Economic growth	-50.25	3.88	4.71	35.22	World Bank
GDP per capita (logged)	4.90	8.16	1.53	11.24	World Bank
Free press	0.00	0.35	0.48	1.00	Li (2005)/Freedom House
GINI	22.90	41.54	9.29	64.80	World Bank
NHI	1.00	1.26	0.59	6.05	Buhaug, Cederman and Gleditsch (2014)
Political exclusion	0.00	0.17	0.21	0.97	EPR
# of ongoing civil conflicts	0.00	0.30	0.71	6.00	UCDP

All independent variables here are lagged by 1 year.

Summary statistics are reported in [Table 1](#).

Note that remittances per capita are measured in 100s of USD/person, and the average level of remittances per capita going into country i in year t is about 100 USD/person. To provide a little more context we can consider what 100 USD/person translates into in total dollar terms to aid with interpretation. A simple regression of total remittance values on remittances per capita shows that each 100 USD/person increase in remittances is associated with a roughly 155 million USD increase in total remittances, on average. If we weight the total value of remittances by the politically excluded population this relationship shrinks, such that each 100 USD/person reflects, roughly, an additional 18 million USD, on average. Of course only some of this money makes it any particular group, but 100 USD/person increases in remittances still reflect millions of dollars going into a given country.

Beyond these overall summary statistics, we may also be interested in differences in terrorism across regimes. Specifically, we can consider how the types of terrorist attacks that tend to be conducted in democracies are different from those within autocracies. If terrorism and legitimate politics are, at least partially, substitutable then we might suspect that groups within democracies would choose tactics that are less likely to turn public opinion against them. As such, we suspect that groups within democracies will choose to conduct attacks with fewer casualties, more unarmed attacks, or that their attacks will be more focused on destroying things rather than people (i.e.,

infrastructure targets or bombings where individuals can be warned ahead of time). The GTD categorizes attack into eight categories (including “other”) that are listed in Table 2.

Table 2: Domestic terrorist attack descriptions by regime type

	Autocracy mean	Democracy mean	<i>t</i> stat.	<i>p</i> -value
Assault	0.20	0.17	0.89	0.38
Assassination	0.07	0.09	-1.03	0.30
Hijacking	0.03	0.01	1.60	0.11
Unarmed	0.01	0.02	-0.54	0.59
Bombing	0.42	0.48	-1.46	0.15
Infrastructure	0.04	0.12	-5.36	0.00
Hostage	0.15	0.07	2.50	0.01
Other	0.08	0.04	2.06	0.04
Total attacks	1.93	15.41	-9.35	0.00
Fatalities/attack	7.08	1.32	2.72	0.01

In the first eight rows of this table we look at the proportion of domestic attacks at the country-year levels by attack type and consider difference-in-means tests across democracies and autocracies. In the last two rows, we consider two additional country-year measures: the total number of attacks and the number of fatalities/attack. For the most part, what we see that there are few significant differences across regimes. Where we do see a major difference, however, is in the use of attacks targeting infrastructure, which are nearly three times more common in democracies relative to autocracies. This type of attack can generate attention without producing major casualties that may make groups less competitive at politics later on.¹⁸ Likewise, we see that the average country-year deaths are dramatically different with only 1.3 deaths/country-year in democracies on average versus about 7 in autocracies. The difference in fatalities, despite the fact that democracies experience more overall terrorism than autocracies on average, suggests that groups within democracies are in fact taking care to choose less lethal forms of violence. One possible motive for this is that they are mindful of public support in ways that are compatible with a desire to transition toward legitimate politics.

¹⁸The other statistically significant difference is in hostage taking, where groups within autocracies tend to employ this tactic nearly twice as often.

4 Results

Estimates from the main models are reported in Table 3. The first three models consider just the interaction between regime type and remittances. Model 1 uses no controls other than the two-way fixed effects, while Model 2 adds in the controls listed in Table 1. Model 3 adds a lagged dependent variable to these controls.¹⁹ Across the first three models we see that the coefficients on remittances and the coefficients on the interaction between remittances and democracy are statistically significant. The former reflects the effect of remittances within autocracies (when democracy and anocracy both equal 0). Here, the effect is positive and significant at conventional levels across the five specifications. These results support for Hypothesis 2; within autocracies an increase in remittances is associated with an increase in the average number of domestic terrorist attacks, holding the other variables constant.

The interaction coefficient for democracy and remittances tells us that remittances have different effects in democracy and autocracies. However, in Models 1-3 we are actually interested in the combined estimate of $\hat{\beta}_{\text{Remittances}} + \hat{\beta}_{\text{Remittances} \times \text{Democracy}}$. Across these models, the combined estimates are negative and statistically significant at conventional levels, which supports Hypothesis 1. Overall, this result means that not only does the effect of remittances change with regime type, but the conditional effect is such that remittances have *opposite* effects in democracies and autocracies.

In Model 4, we consider an additional interaction. Here, we interact remittances with the regime type dummies and logged GDP per capita. This three-way interaction helps to contextualize remittances within the economic conditions of each country. It is unclear *a priori* how GDP per capita affects the effect of remittances on terrorism. On the one hand, in countries where GDP per capita is smaller, remittances are perhaps more likely to be used for subsistence, and recipients may be reluctant to use them for either terrorism or legitimate politics. As GDP per capita increases, however, it may be the case that remittances become, at least in part, disposable income and political action becomes an attractive spending outlet for individual recipients. Put another

¹⁹In the interest of space, only the estimated coefficients for remittances and the variables interacted with remittances are presented here. The estimated coefficients for the other control variables can be found in Appendix B.

Table 3: Regression results for the conditional effect of remittances on domestic terrorism

Dependent variable:	Domestic terrorist attacks			
	(1)	(2)	(3)	(4)
Remittances	0.15** (0.06)	0.20** (0.07)	0.19** (0.06)	-0.46 (0.33)
Remittances \times Democracy	-0.46** (0.14)	-0.48** (0.13)	-0.42** (0.11)	-2.25* (1.18)
Remittances \times GDP pc				0.10* (0.05)
Remittances \times Democracy \times GDP pc				0.16 (0.13)
$\hat{\beta}_{\text{Remittances}} + \hat{\beta}_{\text{Remittances} \times \text{Democracy}}$	-0.31** (0.14)	-0.28** (0.13)	-0.23* (0.12)	
Combined coefficient on remittances (Low GDP pc, Autocracy)				0.23** (0.11)
Combined coefficient on remittances (High GDP pc, Autocracy)				0.47** (0.20)
Combined coefficient on remittances (Low GDP pc, Democracy)				-0.92** (0.35)
Combined coefficient on remittances (High GDP pc, Democracy)				-0.30** (0.13)
Country Fixed Effects	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes
Controls	No	Yes	Yes	Yes
Lagged dependent variable	No	No	Yes	No
Observations	2,979	2,979	2,979	2,979
Log Likelihood	-5,616.71	-5,467.17	-5,406.32	-5,450.49
θ	0.44	0.55	0.62	0.57

* $p < 0.1$, ** $p < 0.05$. Coefficients from negative binomial models. Standard errors in parentheses clustered on country. Coefficients for the control variables are suppress for space but can be found in Appendix B.

way, the effect (positive or negative) of remittances on terrorism may grow with GDP per capita. On the other hand, individuals in poorer countries may have greater stronger anti-government sentiments; incoming remittances to these countries may lead to reductions in these sentiments (reducing terrorism regardless of regime type) or they may use these resources to advance their cause (more terrorism within autocracies, but less within democracy).

From this model, we consider the combined coefficient of remittances at specific values of GDP per capita. To keep the interpretation simple, we consider the 25th and 75th percentiles (approx-

imately 1,000 USD/person and 11,500 USD/person, respectively).²⁰ In both cases, a larger GDP per capita is associated with a increase (toward positive infinity) in the coefficient on remittances. Within autocracies, this means that more remittances to richer autocracies are associated with more terrorism than when the remittances go to poorer autocracies. Within democracies, we see that more remittances to wealthy democracies are associated with an attenuation of the pacifying effect. In other words, we still see a reduction in domestic terrorism as remittances increase, but the effect is smaller within wealthier democracies. This reduction may reflect the fact that politics is more expensive in richer democracies, shrinking the effectiveness of each additional 100 USD/person increase in remittances.

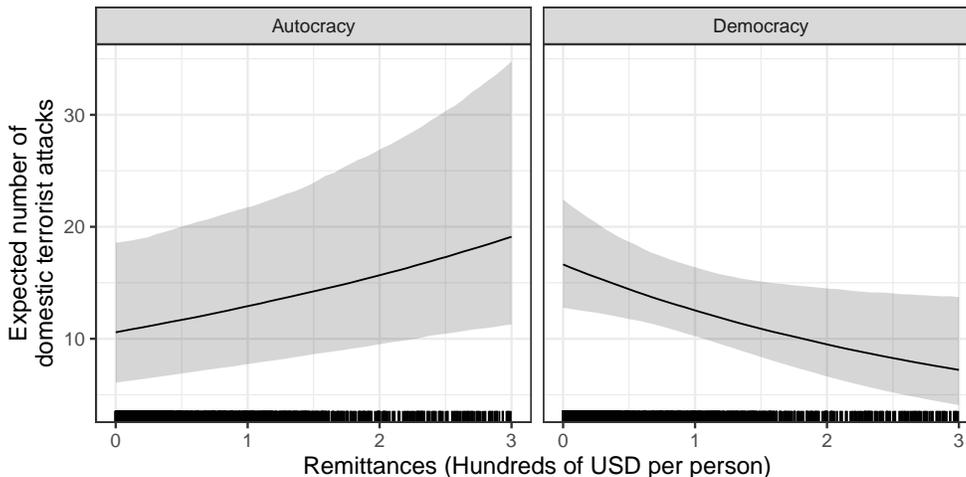
While identifying the direction of these differing trends is interesting, we are also interested in how different the effects of remittances are across regime types. We explore this in two different ways using the two-way fixed-effects estimates from Model 2. The first is to graph the expected number of terrorist attacks as a function of remittances for both autocracies and democracies holding all the other variables fixed to their observed values. These results are presented in Figure 1. We focus on changes of 100 USD/person for ease of interpretation. This value is roughly a doubling of the overall average level of remittances or about a two standard deviation increase in within-country remittances. As such, this amount reflects a large, but plausible, increase in within-country remittances.

The first thing we note in Figure 1 is that the trend lines are moving in opposite directions. For each 100 USD/person increase in remittances we see that expected number of terrorist attacks within an autocracy is rises by an average about 3 attacks per year. Given the damage and destruction associated with a single attack, increases of this magnitude represent substantial change. In contrast, the same increase in remittances across democracies results in a decrease of about 3–4 fewer attacks; an effect that is more precisely estimated.²¹

²⁰These values roughly reflect the GDP per capita of Pakistan since 2010 and South Korea in the 1990s, respectively).

²¹The differences in attack number across regime type are not significant at low levels of remittances, but the gap is significant starting at about 250 USD/person. However, our focus is on the direction of these trends within regimes (i.e., the slopes in Figure 1), not the cross-country comparison. Nevertheless, Appendix C presents the difference in expected number of attacks by regime.

Figure 1: Expected number domestic terrorist attacks by remittances and regime (Model 2)



Caption: Shaded areas represent 95% confidence intervals from a parametric bootstrap. The changes from moving from 0 to 100 USD/person are statistically significant at the 0.05 level in both regimes and roughly match the effect sizes reported in Table 4.

Next, we consider the average marginal effect (AME) of a 100 USD/per person increase for each individual observation in the data and then compute the average. The estimated AMEs for each regime type are reported in Table 4. Each additional 100 USD/per person in remittances sent to autocracies is associated an average increase of 2.4 domestic terrorist attacks, holding the other covariates fixed to their observed values. In contrast, within democracies an additional 100 USD/person in remittances is associated with an average decrease of nearly 4 attacks, holding the other covariates fixed to their observed values.²² These two marginal effects roughly match the slopes shown in Figure 1.

Overall, these differing trends support the hypotheses laid out above and provides new evidence for the pacifying effect of accessible political institutions. Remittances can help would-be terrorists transition to legitimate politics in places where these institutions exist. Without these resources, groups may find violence to be more effective for expressing their politics, even when electoral institutions are available.

Additionally, these results align with past works that find a violent effect of remittances and provide some important face validity to our results. Past work finds that financial support from

²²It's worth noting that these effects may be overestimated due to dropping the all-zero groups. To address this we follow advice from Crisman-Cox (2021) and fit a Mundlak-style model in Appendix D.4, the marginal effect attenuates a little for democracies but is larger for autocracies.

Table 4: Average marginal effect of remittances on domestic terrorist attacks (Model 2)

	Autocracy	Democracy
Change in attacks	2.38 (0.48, 4.27)	-3.77 (-7.30, -0.24)

95% confidence intervals calculated using the delta method in parentheses.

migrant diaspora increases the likelihood that groups mobilize and engage in violent insurgencies (e.g. Miller and Ritter 2014; Salehyan 2007) or terrorism (Mascarenhas and Sandler 2014). Further, this relationship matches qualitative studies that consider the effect of remittances in specific intrastate disputes such as Kosovo and Somalia (Adamson 2006; Horst 2008). However, where we differ from this work is that we *only* find this trend within autocratic regimes.

4.1 Mechanism tests

Having demonstrated that remittances have different effects on the incidence of domestic terrorism across regime types, we now explore the mechanism behind these trends. Specifically, we argue that the competitive aspects of democracy and the openness of the political system are what lead to remittances having a pacifying effect on domestic terrorism. To better highlight this mechanism we adjust Model 2 to focus on the competitive aspects of democracy. Instead of looking at democracy and anocracy dummies, we first consider polity’s competitiveness of executive recruitment variable within each state, measured on an ordinal 0-3 scale.²³ We use this variable as a proxy for access and ability to succeed at legitimate politics.

As a placebo test, we then consider a model that includes both this competition measure and the polity variable for executive constraints on an ordinal 0-6 scale.²⁴ Executive constraints work as a placebo because we have no theoretical expectation about the interaction between remittances and constraints. Including them in a combined model allows us to see which of these two aspects

²³We recode the competition variable to better match how it maps into polity scores, specifically we switch levels 0 and 1 such that 0 now reflects a closed system (polity score decreases toward -10) and 1 reflects a poorly regulated system (does not enter a state’s polity score in either direction). Levels 2 and 3 still reflect increasing competition (polity score increases toward 10). This rearranging means that the average, minimum, and maximum polity2 scores are increasing across the four levels.

²⁴We subtract 1 from the original 1-7 constraint coding so that the coefficient on remittances still reflects the effect in the truest autocracies (i.e., competition and constraints are both zero).

of democracy acts as the conditioning variable.²⁵ Here, we want to be sure that the interaction between remittances and competition is still negative and significant even when other aspects of democracy are introduced. We replicate these tests using V-Dem’s participatory democracy index for competition and legislative constraints on the executive for constraints. The former measure focuses on how involved with and engaged individual citizens are in the democratic processes within their country. The latter focuses on how much oversight the legislature has over executive action. Both are important parts of the democracy, but our theory suggests that the ability to participate should be the main mechanism connecting remittances to terrorism. Both measures are continuous on the unit interval.²⁶ The results are presented in Table 5.

Some interesting results appear in this table. First, in low competition states we see that an increase in per capita remittances is still associated with an increase in domestic terrorist attacks in three of the four specifications, holding executive constraints fixed. Second, in states with more political competition (i.e., where groups have more ability to influence politics through legitimate means), remittances are associated with fewer terrorist attacks. Third, when we add in the executive constraints variable, which reflects a notably different aspect of democracy, we see that the pacifying effect of remittances still goes through the competition measures. Indeed, in Models 6 and 8 we see that countries with higher levels of constraints may experience more terrorism as remittances increase. This result suggests that there may be multiple pathways through which remittances affect terrorism, but the pacifying effect that dominates within democracies is more associated with the competitive components, supporting our proposed mechanism.

We continue to explore the underlying mechanisms by considering some of the relationships that connect remittances, democratic competition, and domestic terrorism. This result provides us with a baseline that we build on here. Specifically, we consider additional regressions that focus only on strong and weak democracies.²⁷ Here we are interested in how various measures

²⁵Colinearity may be a concern in the encompassing model. An alternative approach to testing the competition mechanism is to consider models with only a constraints measure and compare them against competition-only models. In both the V-Dem and polity cases, the competition model has a better AIC and Vuong tests suggest that the competition model is preferred.

²⁶Using the indices for civil society participation or opposition part autonomy as the political competitiveness measure produces similar results.

²⁷To retain more observations, we follow [Crisman-Cox \(2018\)](#) and slightly expand our democracy coding when

Table 5: Exploring the political competition mechanism

Dependent variable:	Domestic terrorist attacks			
	Polity		V-Dem	
	(5)	(6)	(7)	(8)
Remittances	0.22** (0.09)	0.22* (0.13)	-0.04 (0.20)	-0.31 (0.47)
Remittances \times Competition	-0.19** (0.05)	-0.29** (0.10)	-0.35 (0.38)	-1.43** (0.47)
Remittances \times Constraints		0.06 (0.06)		0.98 (0.78)
Combined coefficient on remittances (low competition)	0.22** (0.09)	0.47** (0.17)	-0.06 (0.17)	0.22* (0.12)
Combined coefficient on remittances (high competition)	-0.35** (0.13)	-0.41** (0.17)	-0.26** (0.12)	-0.58** (0.21)
Country Fixed Effects	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes
Observations	2,902	2,902	2,892	2,892
Log Likelihood	-5,285.66	-5,282.53	-5,336.78	-5,310.58
θ	0.53	0.53	0.53	0.55

* $p < 0.1$, ** $p < 0.05$. Coefficients from negative binomial models. Standard errors in parentheses, clustered on country. For the combined coefficients, the high (low) values are the 90th (10th) percentile of the competition measure. For models with constraints, the constraints variable is fixed to its median value when combined. Coefficients for the control variables are suppressed for space.

of institutional accessibility interact with remittances within democracies, where we believe that accessibility should make remittances more effective. We consider this across four new negative binomial models using two-way fixed effects and the controls from Model 2, above. First, we consider the effect of remittances on domestic terrorism in democratic states with and without proportional representation (PR). PR is typically seen as a more inclusive form of democracy with lower startup costs and easier access to representation (e.g., [Aksoy and Carter 2014](#); [Powell 1982](#)). As such, we expect that the mitigating effect of remittances on terrorism to be more pronounced in PR systems.

Second, we consider legislative fractionalization as the mediating variable. This measure is taken from the DPI and reflects the probability that any two randomly chosen legislators are from

moving to a democracy-only subset by including all country-years with a polity score of five or above. This includes some democratic-leaning anocracies with legislative elections.

Table 6: Political competition within democracies

Dependent variable:	Domestic terrorist attacks				Opposition vote share
Model:	Negative binomial				Linear
	(9)	(10)	(11)	(12)	(13)
Remittances	0.16 (0.20)	-0.98** (0.49)	-0.52* (0.29)	-0.63** (0.31)	1.92** (0.80)
Remittances × PR	-0.47** (0.24)	0.81 (0.53)			
Remittances × legislative frac.			0.41 (0.39)	0.66 (0.60)	
Remittances × ELF		4.89** (1.95)		0.14 (1.18)	
Remittances × ELF × PR		-5.66** (2.01)			
Remittances × ELF × leg. frac.				-0.55 (1.66)	
Combined Coefficient of remittances					
Less open	0.16 (0.20)		-0.29** (0.13)		
Low ELF		-0.59* (0.35)		-0.27** (0.13)	
High ELF		1.61** (0.62)		-0.35 (0.22)	
More open	-0.31** (0.14)		-0.21 (0.13)		
Low ELF		-0.23 (0.15)		-0.16 (0.19)	
High ELF		-0.58** (0.17)		-0.28* (0.16)	
Country fixed effects	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes	Yes
Observations	1,465	1,465	1,465	1,465	650
Log Likelihood	-3,044.62	-3,031.97	-3,048.21	-3,046.96	-2,665.77
θ	0.84	0.87	0.82	0.82	
R^2					0.86

* $p < 0.1$, ** $p < 0.05$. Regression coefficients. Standard errors in parentheses, clustered on country. Coefficients for the control variables are suppressed for space.

different parties. Fractionalization captures the ease at which new parties can be formed and enter the legislature: higher numbers mean that there are lower barriers to entry, but at the cost perhaps greater gridlock and competition. Finally, we consider an interaction of these factors with the ethno-linguistic fractionalization (ELF) within the country (from [Fearon and Laitin 2003](#)).

These results are presented in Table 6.

The first two models focus on PR. In the first, we see that within PR systems, remittances are associated with fewer terrorist attacks and this appears to be driving most of the democracy results we saw above, as relationship between remittances and terrorism in non-PR democracies is positive but insignificant. This result supports our argument that recipients of remittances will use them for legitimate politics when such institutions are more accessible. In the second, the combined coefficients suggest that remittances have pacifying effects within democracies that have either low levels of ethnic heterogeneity or a PR system. In other words, the only situation where we find that remittances are associated with more terrorism within democracies are in cases where population is very diverse *and* institutions are more difficult to enter. This exception fits with our broad understanding of why the pacifying effect emerges in other democracies, as this combination reflects the hardest case for groups within a democracy. Likewise, this exception supports results on terrorism due to inter-group competition and within-country heterogeneity within democracies from [Chenoweth \(2010\)](#) and [Foster, Braithwaite and Sobek \(2013\)](#), but suggests that a combination of open institutions and money can overcome these effects.

The next two models consider legislative fractionalization.²⁸ This measure can represent both the ease of getting a party into the legislature, but also perhaps the difficulty in forming governments or moving things through a very divided legislature. In Models 11-12, we find little evidence that legislative fractionalization has much impact on how remittances affect terrorism as the interaction coefficients on legislative fractionalization are all insignificant and the combined coefficients are not statistically distinguishable from each other holding ELF fixed. We see some suggestive evidence here that the pacifying effect may be more pronounced in more heterogeneous countries, but we cannot reject the hypothesis that these coefficients are identical to each other holding legislative fractionalization fixed. These null result may be attributed, in part, to the fact that legislative fractionalization encompasses both institutional openness and the potential obstacles in enacting policy. Overall, the openness of PR, particularly in more diverse countries, appears to drive the main pacifying result within democracies.

The final model in Table 6 is a linear model that regresses opposition vote share on remittances.

²⁸We get similar results if we use the number of parties in the legislature instead.

The data on opposition vote share comes from the Database of Political Institutions (DPI) and records the total vote share for all opposition parties. Here, we are looking for whether remittances have an effect on opposition politics. Specifically, if marginalized recipients are using remittances as a means of advancing their politics, then we expect that opposition parties will do better in legislative elections. This is a coarse measure, but it still helps us look for a link between remittances and political activity. This model is fit to only the democratic-country-years where a legislative election is held with two-way fixed effects. Controls variables are based on Model 2 where some variables are removed to reflect the fact that this is a very different outcome variable.²⁹ Here we see that remittances tend to increase the proportion of votes that opposition parties receive, which builds on O'Mahony's (2013) finding that remittances increase as elections approach. Indeed, this result demonstrates a motive for this relationship by showing that remittances are associated with improved opposition performance in legislative elections; on average, each 100 USD/person increase in remittances is associated with about a 1.9 percentage point increase in the opposition vote share (all else equal). Overall, these models provide distinct tests of the mechanisms we posited for the relationship between remittances and terrorism within democracies. Specifically, these tests build the case that in countries with open institutions, like PR, remittances lead to less terrorism and that remittances benefit opposition parties within democracies. These two trends highlight the way in which remittances can lead to a shift away from violent politics and into legitimate politics.

The results from the opposition vote share model also speak to the debate about remittances and political engagement. As mentioned, Dionne, Inman and Montinola (2014) find that receiving remittances depresses voter participation in some African countries, while Pfutze (2014) finds mixed results on voter participation in Mexico. Here, we find that remittances increase the vote share for opposition parties specifically, which matches our expectations for how political engagement should increase. As noted above, these results can be compatible with past work, assuming that the depressed turnout they find is mainly among incumbent supporters. While these previous works are perhaps not directly comparable to this analysis due to differences in countries and remittance measures, future work may benefit by further breaking down voter turnout by incumbent and opposition.

²⁹Specifically, we remove the number of civil conflicts and military size as they seem less likely to be relevant to this outcome.

5 Conclusion

In this paper we asked: What effect do remittances have on domestic terrorism, and are these effects different across regimes? While previous work has considered the first question, it has not looked at how regime type influences the effect of remittances. We find that within autocratic states remittances are associated with an increase in the average number of domestic terrorist attacks. This result matches both previous work and the conventional wisdom on the relationship between remittances and terrorism. However, within democracies the effect of remittances is the exact opposite: more remittances are associated with a decrease in the incidence of domestic terrorism. These heterogeneous effects are a novel finding in the study of domestic terrorism and provide new insight into when remittances might encourage or discourage political violence.

What explains these different effects across regime? Remittances to both regimes represent additional resources and income that can go towards political activity. However, what this political activity looks like varies by regime type. Within democracies, legitimate politics is a more available option, but it is often an expensive undertaking. When groups do not have the resources to compete with peaceful politics, terrorism is an attractive option. This dynamic is relatively common among terrorist groups that grow out from politically marginalized groups within democracies. However, as remittances increase, peaceful politics becomes an increasing viable option within democracies and violence can become a less attractive political strategy.

In contrast, within autocracies there are fewer opportunities for peaceful, anti-incumbent political activity. Without these institutional outlets, the trade-off between peaceful and violent politics does not come into play. Thus, as remittances increase, they support alternative political outlets such as terrorism. This matches previous work that looks at the destabilizing effect of remittances within autocracies (e.g. [Escribà-Folch, Meseguer and Wright 2018](#)). While this particular result matches the conventional wisdom regarding the relationship between remittances and terrorism, it is only part of the larger story. By looking at autocracies and democracies within a single interaction model we are able to produce a new result about the heterogeneous effects that remittances can have across regime types.

With these results, we contribute to the study of domestic terrorism by demonstrating that while remittances are sometimes associated with an increase in domestic terrorism (confirming

conventional wisdom and results from [Mascarenhas and Sandler 2014](#)), this effect only appears within autocratic states. Within democracies, we find robust evidence to suggest that an increase in remittances tends to reduce the incidence of domestic terrorism.

Additionally, while counterterrorism experts sometimes view remittances suspiciously, our results suggest that this focus may be over broad. Indeed, in countries with open political institution, remittances may decrease domestic terrorism and as such democratic states should carefully consider any policy that looks to restrict remittances in the name of counterterrorism. To the extent that additional resources may improve the ability of marginalized groups to shape political outcomes peacefully, an increase in remittances may improve the security situation, particularly in countries with proportional representation systems. Future work should consider this mechanism further by collecting micro-level data on remittances and migrant networks. Specifically, scholars should look for and identify other institutional barriers within democracies that limit access to legitimate politics. These mitigating variables can help identify and remedy situations where access theories of terrorism appear to break down.

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