

Challenging the State: Effect of Minority Discrimination, Economic Globalization and Political Openness on Domestic Terrorism¹

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Discrimination against minority groups is a robust predictor of domestic terrorism. However, economic and political openness might further facilitate mobilization of such aggrieved sections of a larger population. This study relates economic and political openness to minority discrimination in explaining vulnerability to domestic terrorism. Terrorism is a rational choice when minority's deprivation from public good provisions increases, while global economic integration and limited political openness facilitate rebel mobilization. Using data on 172 countries, I find strong support that countries discriminating against minority groups are more likely to experience domestic terrorist attacks when their economic and political systems open up.

Economic Globalization, Political Exclusion, Domestic Terrorism, Economic Development, Weakly institutionalized Democracy

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Several studies on terrorism have explored and analyzed the independent effect of minority discrimination as well as the impact of economic and political openness on terrorism (Bradley 2006; Freytag, Krüger, Meierrieks and Schneider 2011; Kis-Katos, Liebert and Schulze 2011; Li 2005; Lai 2007; Li and Schaub 2004; Piazza 2011). However, few studies explore the interactive effect of discrimination and economic and political openness in producing terrorism, although we would expect terrorism mostly to be a result of a combination of a few factors. Crenshaw (1981) emphasized the roles of preconditions, factors that set the stage for terrorism over the long run, and precipitants, specific events that immediately precede the occurrence of terrorism, in explaining terrorist events. Several historical cases would support Crenshaw's (1981) theoretical assumption. For example, the Spanish state under Francisco Franco had been discriminating against the Basque people since 1939, yet ETA (Basque Homeland and Freedom) started a full-fledged terrorist campaign against the state during 1979-80. Incidentally, the period coincided with Spain's transition to democracy and followed the so-called economic boom between 1960 and 1975 in Spain (Shabad and Ramo 1995). Among many factors, economic and political openness probably played an important role in driving the Basque people to terrorism as a means for redressing their grievances. This paper explores how discrimination as "precondition" interacts with economic and political openness to produce higher levels of terrorism. I argue that groups/individuals are likely to challenge the state when their economic discrimination and/or political exclusion increases, and economic and political openness as "precipitants" provide them further incentives to challenge the discriminatory state. Therefore, a state must address discriminated groups' grievances or "precondition" first, before opening up its economic and political system.

The paper proceeds as follows. First, I review extant research on terrorist violence, focusing specifically on discrimination and other economic and political drivers of terrorism. I then develop an argument about the conditional relationships among discrimination, economic and political openness, and domestic terrorism. Most theoretical models of terrorism imply this interactive relationship. Next I present an empirical analysis of domestic terrorism on a cross national dataset of 172 countries for 1970-2007. I find strong and consistent evidence that in the presence of discrimination, terrorism is more likely to be employed by violent non-state actors against a state as the state's economy and political system open up. I conclude with a discussion of policy implications of my findings.

Herein, I focus on domestic terrorism because it occurs far more frequently than transnational terrorism², although the latter generates more media and scholarly attention (Abadie 2006). The tactic of terrorism³ is difficult to define; still it does have several key features that distinguish it from other types of intrastate violence. Domestic terrorism is terrorism that nationals carry out against their own country, including their government or their fellow countrymen and women. Moreover, the study of homegrown terrorism needs a theoretical framework that should include explanatory variables that are endogenous to a state. On the other hand, causal analysis of transnational terrorism needs to take into account at least some factors that are exogenous to the state of attack. Since my primary independent variables -- minority discrimination, and economic openness, and regime type -- are all endogenous to a state, I limit this study to domestic terrorism only.

² Domestic terrorism represents by far the greatest type of terrorist violence observed (see Figure 1). Of the nearly 60,000 terrorism incidents recorded in the Global Terrorism Database between 1970 and 2007, local, within country groups, produce 78% of the attacks.

³ Terrorism is the premeditated use or threat to use violence by subnational groups against noncombatants for a political/social objective by intimidating an audience beyond the victims (Enders Sandler and Gaibullov 2011).

[FIGURE 1 HERE]

Extant Literature on the Drivers of Terrorism

In the last two decades, many conflict scholars have shifted their attention to understanding the causes and consequences of political terrorism. The amount of research on terrorism being published in political science journals has multiplied several times over what it was pre-9/11 (Young and Findley 2011). A rich conflict literature shows that marginalized ethnic, racial, and social minority groups are likely to support political violence. Systematic exclusion of the Catholics in Northern Ireland from governmental welfare benefits in the 1960s and 1970s resulted in higher levels of Irish Republican Army terrorist attacks (O’Hearn 1987). Similarly, discrimination against the Tamil minority was the main driver of separatist terrorism in Sri Lanka (Shastri 1990). Likewise, the Basque country terrorism in Spain mostly resulted from the routine exclusion of the Basque people during Franco’s authoritarian regime in the 1960s (Shabad and Ramo 1995). Piazza (2011, 2012) has similarly found that the presence of minority economic discrimination in countries increases the likelihood that a country will experience domestic terrorist incidents.

Studies on the economic drivers of terrorism inconclusively pull in different directions. The widespread view that poverty creates terrorism has dominated much of the debate that was generated after 9/11 attacks (Kahn and Weiner 2002). The notion that poverty generates terrorism is consistent with the results of most of the literature on the economics of conflicts such as political coups (Alesina, Ozler, Roubini and Swagel 1996) and civil wars (Collier and Hoeffler 2004). Because terrorism is a manifestation of political conflict, these results seem to indicate that poverty might play an important role in explaining terrorism. Recent empirical studies, however, have challenged the view that poverty creates terrorism. Russell and Miller (1983)

found that most terrorists arrested in Latin America, Europe, Asia and the Middle East came from the middle or upper class families in their respective nations or areas. Krueger and Maleckova (2003) find little direct connection between poverty or education and participation in terrorism among individuals in West Bank, Gaza Strip and Lebanon. Similarly, Abadie (2006) shows that poverty is not related to terrorism. Other large-n studies support the above finding that poverty neither increases nor decreases terrorism (Boylan 2010; Krueger and Laitin 2008). On the other hand, some country-level studies relate terrorism to economic prosperity (Berrebi 2007; Lai 2007). However, a few studies (De la Calle and Sánchez-Cuenca 2012; Enders, Hoover, and Sandler 2014; Freytag et al. 2011; Lai 2007) found an inverted U-shape relationship between per capita GDP and terrorism. The scholarly disagreement over the role of economic drivers of terrorism is compounded by studies arguing that social welfare policies—including social security, unemployment, and health and education spending—discourage terrorism by reducing poverty, inequality, and socioeconomic insecurity (Burgoon 2006; Krieger and Meierrieks 2010).

Similarly, studies on how political openness impacts domestic terrorism are also inconclusive. The Bush Doctrine, former president George W. Bush's policy of democracy promotion abroad (and preventive war), placed the regime's effect on terrorism at the forefront of American foreign policy (Windsor 2003). Though President Bush assumed a negative relationship, in fact, no consensus exists on how democracy affects political violence. The literature presents two opposing views. Some researchers argue that democracies are less likely to experience domestic terrorist incidents (Rummel 1995; Schmid 1992), while others contend that democracies provide a fertile ground for domestic terrorism and hence are more likely to be targeted (Eubank and Weinberg 1994; Pape 2003). Scholarly findings on the effect of economic

openness or economic globalization on terrorism are equally inconclusive. A study by Li and Schaub (2004) shows that trade, foreign direct investment (FDI), and portfolio investment have no direct effect on transnational terrorism. Freytag et al. (2011) find that trade reduces incidents of terrorism (domestic and transnational combined), and Kis-Katos et al. (2011) find that trade has no relationship with either domestic or transnational terrorism.

A review of terrorism literature shows, however, that scant attention has been paid to discrimination against group/s as a predictor of domestic terrorism in large-n cross country studies. Two studies (Piazza 2011, 2012) have found that economic discrimination against national minority/ies increases the count of domestic terrorist incidents. No study, though, has so far explored the impact of political discrimination on domestic terrorism. Inconclusiveness regarding political or economic predictors of terrorism, and a lack of focus on discriminatory state policies as a probable cause of domestic terrorism have left terrorism studies unable to articulate a clear counter-terrorism policy recommendation (see Piazza 2011). This research would contribute to the study of domestic terrorism by exploring how minority discrimination in itself, and in combination with other economic and political factors drives the levels of domestic terrorism. More specifically, I develop a theoretic model interaction relationship between discrimination and economic and political openness deriving from Crenshaw (1981). Alesina and Spolaore (2003) used a similar logic to explain disintegration of heterogeneous states, suggesting that individuals' deprivation from public goods or exclusion from political power encourages them to challenge a state. In turn, integration to the global economy and political openness accelerate the process by working as "precipitants".

Economic Discrimination against a Minority and Economic Globalization

A theoretical framework exploring terrorism might need to take into account, among other factors, the existence of concrete grievances among an identifiable subgroup of a larger population. Crenshaw (1981) has argued that discrimination of minority group/s might be a major precondition that sets the stage for terrorism over the long run. Similarly, Gurr (1970, 1993) argues that relative deprivation—a phenomenon whereby individuals become aggrieved when their material status does not match up to their expectations, partially set by the higher economic status of others in society—can explain the occurrence of political violence, thus linking economic deprivation suffered by minorities to terrorism. Discrimination or deprivation of a minority group --which usually involves some combination of employment discrimination, unequal access to government health, educational or social services, and lack of economic opportunities available to the rest of society --helps to develop minority group grievances, which are often directed against the state, economic status quo, mainstream society, and the majority population (Piazza 2011). Economic discrimination against minority group/s may be one of the different specific forms of discrimination.

Economic discrimination against a minority may result in grievances and motivate some group members to demand policy change. However, economic openness might provide them further incentives to challenge the state because unsettling forces of globalization increase their sense of “relative deprivation”. Scholars disagree over the issue of economic globalization’s effect on terrorism. Argument for the ameliorative effect of globalization on terrorism is based on the premise that terrorism is a function of poverty and underdevelopment. Economic liberalization is thus likely to alleviate the problem of poverty by stimulating economic growth; hence, the rich and poor of the world would be better off than they previously were. Along these lines, recent studies claim that trade and financial market integration leads to enormous socio-

economic benefits in health, social spending, education, particularly in the world's poorest countries (Frankel and Romer 1999; Levine and Rothman 2006; Owen and Wu 2007). On the other hand, Rodrik (1997, 2011) has raised doubt about the positive effect of trade openness on economic growth for the developing countries.

In a country where national minorities are routinely discriminated against, economic globalization might create a conducive environment for violent political opposition to the state by such discriminated sections of people. The relationship between economic openness, often measured as trade and capital accounts openness, and conflict is mostly modeled as a struggle between the winners and losers of global competition. Even so, the benefits of globalization, such as higher economic growth, are not shared evenly. Contrary to expectations, the benefits of free trade and investment have not trickled down to the vast majority of poor people in developing economies. Foreign Direct Investment has increased the demand for skilled labor, causing unemployment for a large number of unskilled labors (Bornschieer and Chase-Dunn 1985). Inequality is increasing in the developed countries too (Frank and Cook 1995). The capital intensive developed countries import cheap products from the labor-intensive countries, rendering a large number of laborers jobless in the developed countries. Moreover, movement of big manufacturing units to the Third World countries adds discontent in the developed countries. In a state where one or more minority groups have been long discriminated against, economic globalization seems to benefit the majority population disproportionately, as the minorities are likely to lack skills and resources to reap the benefits of global trade and investment. Moreover, the dominant groups could monopolize all the benefits of economic openness by deliberately excluding the minorities. By lowering the opportunity cost of violence for the losers of

globalization, a movement toward economic openness can increase domestic conflict (Magee and Massoud 2011).

Some prominent economists argue that increased economic competition will spur a “race to the bottom” in social standards, setting the stage for violent resistance and conflict, perhaps because the spread of corporate capitalism and neoliberal policies privilege capital over communitarian values. For instance, research suggests that curtailing government control over taxing and spending decisions leads to the lowering of safety nets for the losers, and lower production of public goods (Rodrik 1997). Exposure to globalization—measured often as the free flows of goods, capital, and people—creates the conditions for social breakdown resulting from resistance on the part of those who become marginalized (Apter 2008). Moreover, as global competition for markets and capital heats up, the dictates of cut throat competition will force states to lower social standards in order to enhance their competitive edge. Thus, the countries seeking assistance from international financial institutions like the World Bank and IMF in the form of grants/aid/loans are often forced to adopt unsuitable neoliberal policies that may harm ordinary people (Woods 2006). These initiatives primarily include a reduction in expenditure on the social sector and on development spending (Nooruddin and Simmons 2006). The national minorities are likely to be badly affected by such reduced social and development spending because they are generally impoverished due to prolonged discrimination.

Economic globalization indeed creates economic inequality, and aggregate measures of inequality often correlate with domestic terrorist incidents in large-n studies (see Piazza 2011). However, one needs to look beyond the national level inequality in order to understand terrorism. Urban poverty, which can be a direct result of economic globalization, may have greater explanatory power for explaining domestic terrorism. People moving to cities often cannot afford

the high costs of housing and tend to settle in poorer neighborhoods. Further, new urbanites belonging to minority groups might self-segregate themselves in certain localities where they are vulnerable to radicalization. For example, a study on the profiles of Indian Mujahedeen (IM) terrorists in India shows that all these Jihadist youth were new migrants to Indian cities, and they were radicalized in impoverished Muslim neighborhoods of Indian industrial cities (Rana 2012). Survey respondents in 14 countries representing 62 percent of the world's Muslim population have indicated that approval of Islamic terror is not associated with religiosity, lack of education, poverty or income dissatisfaction. Instead, it is associated with urban poverty (Mousseau 2011). The discussion naturally leads to the following hypotheses.

H_{1a}: Minority economic discrimination increases the risk of domestic terrorism in a country.

H_{1b}: The positive impact of minority economic discrimination on domestic terrorism is likely to be stronger as the level of economic globalization increases.

Political Discrimination and Weakly Institutionalized Democracy

Political discrimination or lack of access to the political system is likely to prompt terrorist activity. Crenshaw (1981) has argued that discrimination produces preconditions under which terrorist groups develop and become active. Population subgroups such as “ethnic minorities” that are “discriminated against by the majority population” develop social movements and agitate for equal rights to all citizens or political autonomy (Crenshaw 1981). Some radical fringe elements from these excluded groups may resort to terrorist violence to achieve their goals (Piazza 2012). Politically excluded people would challenge the state more when political system opens up because democracy provides greater mobilization opportunities for political dissent. Democracy as “majority rule” may not necessarily give minority group/s equal access to political power. Political openness might translate into a “tyranny of the

majority” (see, for example, post-colonial Sri Lanka) or might usher in a new era of political exclusion of an erstwhile powerful group/s (see, for example, post-Saddam Hussein Iraq). Some democratic states might even continue their policy of political discrimination against groups over time (see, for example, the Catholics in Northern Ireland in the United Kingdom).

Non-democracies are able to inhibit the formation and mobilization of terrorist organizations through the use of highly coercive state institutions like the party, military, or secret police (Lai 2007). However, the permissive nature of a democracy facilitates political mobilization by tolerating dissent to a certain extent. A democracy is more likely to experience homegrown terrorism than a non-democracy for three reasons. Firstly, terrorists target civilians in order to extract political concessions from the government. Electoral incentive would make the political elite in a democracy more responsive to costs incurred by civilians than non-democratic elite with small well-protected winning coalitions (Frieden, Lake and Schultz 2010). Secondly, by guaranteeing certain levels of civil liberties, democracies allow terrorists to become organized and maneuver easily, reducing the costs of conducting terrorist activities (Eyerman 1998; Ross 1993). Lastly, to terrorize a wide audience, terrorists pursue recognition and attention by seeking to expand publicity and media coverage of their activities (Hoffman 2006). Press freedom typically found in a democracy increases the opportunities for terrorists to be heard and watched by a large audience, and can enhance their ability to create widespread fear (Li 2005). However, several conflict-reducing mechanisms and greater availability of participatory options would dissuade people from resorting to extra-constitutional methods of political protest, such as terrorism, in a democracy with high levels of institutionalization. Therefore, resorting to violence is a less attractive option in a fully consolidated or institutionalized democracy (Schmid 1992). Such a democracy with institutionalized civil liberties and efficient political institutions --

including an independent judiciary and constitutional protection to the national minority -- might provide citizens, including aggrieved minorities, with ways to express and resolve their grievances amicably, removing the need to resort to terrorist activities.

Liberal democracies of Western Europe and Northern America generally adhere to the principles of the rule of law better than those in the global South. If the rule of law is properly adhered to, the national minorities are less likely to have grievances against the state. Institutionalized democracies tend to maintain high quality of rule of law. Choi (2010) presents a causal explanation in which a high-quality rule of law is considered to dampen ordinary citizens' opportunity and willingness to engage in political violence, protecting democracies from becoming victims of terrorism. Choi's (2010) findings show that, controlling for a number of economic variables, as the quality of the rule of law improves, the likelihood of domestic and international terrorist events decreases. Similarly, empirical studies (Krueger and Maleckova 2003; Krueger and Laitin 2008) show that increased civil liberties reduce terrorism originating from a country. An important element of an institutionalized democracy is the presence of an efficient and impartial judiciary. The possibility of getting justice through an independent judiciary reduces an aggrieved person or group's willingness to resort to violence against the state. For example, Findley and Young (2011) find that presence of an independent judiciary reduces the likelihood of domestic and transnational terrorism in a country. The logic is that independent judiciaries make government commitments to minority protection more credible, thereby providing less incentive for the use of terrorism. Ordinary citizens have incentives to use political violence against other citizens, political figures, institutions, or the government under three conditions: (1) when they hold grievances, (2) when they find no peaceful means of resolving these grievances, -- exacerbating feelings of hopelessness, and desperation, and (3)

when they view terrorist action as a legitimate and viable last resort to vent their anger and frustration (Choi 2010). The lynchpin of this line of reasoning is that as long as ordinary citizens have access to a peaceful mechanism for conflict resolution, they are less likely to contemplate terrorist violence as a practical option to settle disputes. An institutionalized democracy⁴ is most likely to have an efficient and institutionalized conflict resolution mechanism; hence, a lower level of domestic terrorism will be experienced in such democracies.

High levels of domestic terrorism would be experienced in a weakly institutionalized democracy that allows some constitutional guarantee of political and civil liberties but is concomitantly characterized by a deficient rule of law, no institutionalized minority protection and widespread human rights violations. Terrorism is more likely to be adopted as an opposition strategy in political settings where resource mobilization is possible but where peaceful protest generally renders no fruitful results. Feldmann and Perala (2004) present empirical evidence to argue that the presence of weakly institutionalized democracies is the main driver of terrorism in post-Cold War Latin America. Such a regime resembles what Zakaria (2007) has aptly termed an “illiberal democracy” where the rights of religious and ethnic minorities are at risk even though electoral alterations take place routinely and in a moderately free and fair fashion. The inefficient functioning of the conflict resolution mechanisms of weak democratic institutions helps terrorist organizations to mobilize by exploiting the grievances of certain sections of people.

On the other hand, unlike authoritarian regimes, such weakly institutionalized democracies are not absolutely repressive; accordingly, some permissive features of the system encourage mobilization of dissent, and electoral accountability of the governments at different levels, however limited, makes the civilians vulnerable to terrorist attacks. A weakly institutionalized democracy not only sometimes fails to alleviate the grievances of minority

⁴ The terms, institutionalized democracy and fully consolidated democracy, are used interchangeably in this paper.

groups (because of the lack of institutionalized system for minority protection) but also allows marginalized groups to politically mobilize. Limited constitutional liberties in such a democracy allow political associations and, therefore, the government cannot stop the initial formation of groups' political organizations as long as they remain under constitutional limits. Often, such organizations emerge as challengers to the same system. The case of Indian Mujahedeen and Student's Islamic Movement of India (SIMI), reported to be responsible for many terrorist attacks in urban centers in India, can be a good example in this regard (Gupta 2011). SIMI was founded in 1977 with the purpose of working with Muslim students to create an Islamic consciousness among them. In the 1990s, militant chauvinism of the Hindu Right, and consequent violence against the Muslim community led to SIMI's radicalization. An apparently benign organization like SIMI declared in 1996 that since democracy and secularism had failed to protect Muslims in India, the only option now was a violent jihad (Rana 2012). The above discussion naturally leads to the following hypotheses.

H_{2a}: Political discrimination against minority group/s increases the risk of domestic terrorism in a country.

H_{2b}: Political discrimination is likely to increase domestic terrorism more in weakly institutionalized democracies than in other regimes.

Research Design

To test the above hypotheses, I use a GEE estimator with a negative binomial specification and an AR(1) error structure. I built a country-year database of 172 countries from 1970 to 2007. Enders et al. (2011) formed the most reliable dataset on domestic terrorism by deriving their count of domestic terrorist attacks occurring within countries by separating domestic from international terrorist events published in the widely used Global Terrorism Database (GTD). The dependent variable for the empirical models is a country-year count of

domestic terrorist incidents derived from the Enders et al. (2011) dataset. The number of incidents per year measures the existence of terrorism and how widespread terrorism is in a particular country. The country-year count has been used widely by scholars in studies of terrorism (Abadie 2006; Lai 2007; Li 2005; Piazza 2011).

This paper uses four independent variables. I describe below the operationalization of three concepts – minority discrimination, global economic integration and weakly institutionalized democracy. There are two measures of minority discrimination – minority economic discriminations and minority political discrimination (political exclusion). My measure of minority economic discrimination is the Economic Discrimination Index (ECDIS) from Minority at Risk dataset. ECDIS is coded in the Minorities at Risk database as a five-point ordinal measure ranging from 0 for no discrimination/no minority at risk group to 4 for extreme minority discrimination in connivance with the state (MAR 2009). The measure of minority political discrimination/political exclusion is the percentage of discriminated population taken from EPR dataset (Wimmer, Cederman and Min 2009). The Ethnic Power Relations (EPR) data set identifies all politically relevant ethnic categories around the world and measures access to executive-level state power for members of these ethnic categories in all years from 1946 to 2010. Discrimination is defined as exclusion from political power; politically excluded people are likely to be deprived of allocation of state resources and other benefits. I use the natural log of this variable. Because these variables⁵ are measuring two different types of discrimination, they are used in the same models. Both types of discriminations might be present in a same country, and a politically excluded group may not necessarily be economically discriminated.

⁵ ECDIS from Minority at Risk dataset measures the intensity of economic discrimination against groups, while the EPR dataset measures the percentage of population excluded from political power structures such as the executive, the bureaucracy and the military. These two measures may not be comparable because they are different dimensions of one concept, minority discrimination. Many countries have both, while many have either of them.

To operationalize global economic integration, I employ the KOF Index of Economic Globalization developed by Dreher (2006) and supplemented by Dreher, Gaston and Martens (2008) as the measure of economic globalization. Economic globalization is defined to have two dimensions. First, actual economic flows are taken into account: trade, FDI, portfolio investment, and foreign income payments. The second sub-index refers to restrictions on trade and capital flows, using hidden import barriers, mean tariff rates, taxes on international trade, and an index of capital controls. In constructing the indices of economic globalization, each of the variables is transformed to an index on a scale of 1 to 100, where higher values denote greater globalization. The index has been used as proxy for globalization in the recent literature (Dreher, Gassebner and Lars-H R 2012). The Economic Globalization variable is lagged by one year to avoid the problem of simultaneity. I use the Polity IV dataset (Marshall and Jaggers 2010) to operationalize the regime-type explanatory variable: weakly institutionalized democracy. The Polity IV conceptual scheme examines concomitant qualities of democratic and autocratic authority in governing institutions, rather than discreet and mutually exclusive forms of governance. This perspective envisions a spectrum of governing authority that spans from fully institutionalized autocracies through mixed or incoherent authority regimes to fully institutionalized democracies. The “Polity Score” captures this regime authority spectrum on a 21-point scale ranging from -10 (hereditary monarchy) to +10 (consolidated democracy) and consists of six component measures that record key qualities of executive recruitment, constraints on executive authority, and political competition. It also records changes in the institutionalized qualities of governing authority. Weakly institutionalized democracy is generated as a dummy coded 1 for all the countries that score +6 through +9 on the combined 21 points democracy-autocracy scale. All the rest of the countries on the Polity IV scale are coded

as 0. Additionally, I generate three other dummy variables – Institutionalized democracy, anocracy, and autocracy. Using the same combined 21 points democracy-autocracy scale, states are coded as other three regime types: Institutionalized democracy (+10), autocracy (scoring -6 or less), anocracy (-5 to +5).

A host of controls that frequently appear in empirical studies of terrorism (see Lai 2007; Li 2005; Piazza 2011; Wade and Reiter 2007) are included in all models. The population of a country is often used in empirical studies of terrorism with the expectation that countries with greater population might experience more terrorist attacks than less populated ones (Abadie 2006). The data on this control variable come from the Pen World database (Heston, Summers and Aten 2012). I use the natural log of population (in millions). The relationship between economic development and terrorism remains a contentious issue in terrorism research. Findings on terrorism are inconclusive on the relation between terrorism and poverty. Therefore, log Gross Domestic Product per capita, held at current international dollars, is used as a control variable in the empirical models. The data on this variable come from the Penn World database (Heston et al. 2012). Log GDP per capita is lagged by one year. Eyerman (1998) finds the age of the current political regime to be a negative predictor of terrorism. The intuitive logic is that frequent regime changes might prevent the government from pursuing a long-term counterterrorism policy and provide terrorist groups with opportunities to organize. Therefore, regime duration, which is calculated as the number of years the current regime has been in power, is included as a control variable in the models. The data on regime duration come from the Polity IV project (Marshall and Jaggers 2010) and are lagged by one year. Table 1 summarizes the variables.

[TABLE 1 HERE]

Analysis and Results: The Empirical Findings

I use a set of time series cross-sectional regression models with negative binomial specification and AR1 error structuring on the incidence of domestic terrorism. The study covers 172 countries from 1970 to 2007. Owing to missing data for some cases, the sample size varies from 4018 to 4580 observations, depending on the model. Because the dependent variable is an event count, ordinary least squares (OLS) estimates will be “inefficient, inconsistent, and biased” (Long 1997). My decision to use negative binomial estimators –rather than ordinary least squares or Poisson models –is recommended by some unique features of the dependent variable. First, it is an interval measurement that cannot include negative values. Second, it is highly unevenly distributed across cases and years, resulting in wide difference between mean and standard deviation. The Poisson regression model is often applied to model event counts, in which the mean of the Poisson distribution is conditional on the independent variables. But the Poisson regression model assumes that the conditional mean of the dependent variable equals the conditional variance. This assumption may be violated in my models (see Table 1), and would cause underestimated standard errors and spurious statistical significance. GEE models use a population-averaged approach to correct for correlation in time-series cross-sectional data, meaning that coefficients show whether covariates influence domestic terrorism on average. Statistical models for the time-series cross-sectional data as used in my models often suffer heteroskedasticity and serial correlation in the error term. To deal with these potential problems, I estimate panel AR1 error structuring models rather than including a lagged dependent variable. These estimated standard errors are robust to both heteroskedasticity and to a general type of serial correlation within any cross-sectional unit. Further, the data on population and GDP per capita are logged. The Wald tests of the model fit are statistically significant at 99% level.

[TABLE 2 HERE]

Models in Table 2 present the results of the empirical analysis in testing two direct hypotheses, H_{1a} and H_{2a} . The two key variables used to test the hypotheses about the effects of discrimination on domestic terrorist incidents for the period between 1970 and 2007, minority economic discrimination and political exclusion, generally receive statistical support. First, minority economic discrimination increases the likelihood of domestic terrorism in a country. This supports earlier findings by Piazza (2011, 2012). Secondly, a country that excludes a section of its population from political power is likely to experience high level of domestic terrorism. When groups are excluded from political power, the state is likely to allocate disproportionately less resources to their welfare. For example, the Sri Lankan government deliberately excluded the Tamil dominated areas from major developmental projects in the 1970s and 1980s (Shastri 1990). In such cases, the government institutions might be unresponsive to the demands of the unrepresented group/s, and motivate such groups/s to resort to terrorist violence. Figure 2 graphs the predicted number of domestic terrorist incidents across the different values of (a) minority economic discrimination and (b) political exclusion when all other continuous variables are kept at their mean values, and categorical variables at their median values.

[FIGURE 2 HERE]

A number of the control variables are statistically significant in the expected directions in all the models (1 through 6) in Table 2. In all models, weakly institutionalized democracy⁶, and

⁶ For a robustness check I ran several models with different regime types all operationalized using the Polity IV dataset (Marshall and Jaggers 2010). ‘Weakly Institutionalized Democracy’ (Polity score +6 through +9) has the strongest positive relationship with domestic terrorist incidents. ‘Institutionalized Democracy’ (Polity score of +10), ‘Anocracy’ (-5 through +5 in Polity scale) and ‘Autocracy’ (less than -5 in Polity scale) all have statistically significant negative relationship with domestic terrorism when ‘Weakly Institutionalized Democracy’ is used as the baseline category. ‘Institutionalized Democracy’ always has statistically significant negative relationship with

anocracy are both positively related to domestic terrorism at statistically significant levels. Although evidence shows anocratic and weakly institutionalized democratic political systems to experience higher levels of domestic terrorism compared to autocratic systems, I find that weakly institutionalized democracies confront the highest risk of homegrown terrorism. Institutionalized democracies are more vulnerable to domestic terrorism than autocracies, the baseline category. However, such regimes are less vulnerable to domestic terrorism than the weakly institutionalized democracies. This finding supports the theoretical expectation that a high level of institutionalization in a fully consolidated democracy deprives the opportunity for groups to engage in extra-constitutional violence by increasing the opportunity cost of challenging a state. Additionally, the population of a country is positively related to the rate of terrorist incidents at a level of statistical significance. The expectation that more populated countries might experience greater number of attacks than smaller ones is supported in the models. A populous country is more likely to be inhabited by heterogeneous groups than a small country. Therefore, there is greater probability of group discrimination and a resultant higher level of domestic terrorist violence than in a less populous and homogeneous country. Figure 3 graphs the marginal effects of all the statistically significant independent variables on the incidents of domestic terrorism.

[FIGURE 3 HERE]

Logged Gross Domestic Product⁷ per capita is positively related to the rate of terrorist incidents at a statistically significant level in Appendix Table A. Economic prosperity increases the likelihood of domestic terrorist incidents in a country. This finding supports earlier empirical

domestic terrorism; terrorism declines at the higher levels of democratic institutionalization. The results are presented in Appendix Table B.

⁷ There is a possibility that economic globalization and development are causally connected because greater integration to the global economy is likely to lead to prosperity. Therefore, I ran models with either of these two variables. There was no change in the results. This gives me further confidence in the robustness of my models. The models with GDP per capita are presented in Appendix Table A.

studies that terrorism originating in a country is positively associated with the country's wealth or economic development (Berrebi 2007; Burgoon 2006; Lai 2007; Piazza 2011). Terrorist operations are clandestine and require certain skills to undertake. Relatively richer countries might have more skillful and resourceful people than a poor country. Another control variable, regime duration, is statistically significant in the expected directions in the models presented in Appendix Table A. The age of the present regime is negatively related to domestic terrorist incidents. Political instability creates opportunities to engage in political violence because frequent regime changes prevent a state from following long term counter-terrorism policy. A stable political regime, conversely, on the other hand can pursue long-term developmental policy, which increases opportunity costs for individuals to join terrorist groups -- making it harder for terrorist organizations to recruit foot soldiers. A stable regime is more capable of maintaining internal security than an unstable regime, and this increases the operating costs of the terrorists

[TABLE 3 HERE]

Table 3 displays the changes in the number of terrorist events moving from selected values of the independent variables for Model 3 of Table 2 for the marginal effects of the independent variables. For dichotomous variables, the values simply range from 0 to 1. For the continuous variables, the variables range from 1 SD below the mean to 1 SD above the mean. The weakly institutionalized democracy has the largest effect, with an increase of 4.34 terrorist events, going from 0 to 1. The log population has the second largest effect resulting in 3.91 more attacks going from 1 SD below mean to 1 SD above mean. If the value of minority economic discrimination index increases from 1 SD below the mean to 1 SD above mean, there will be 3.79 more domestic terrorist attacks a year. Political exclusion has a lower marginal effect on

domestic terrorism than economic discrimination, causing 1.17 more annual attacks when log exclusion is changed from 1 SD below the mean to 1 SD above mean. Institutionalized democracy causes a slightly greater number of terrorist events than anocracy. The effect of economic globalization is relatively small -- 0.52 less attacks when KOF index increases from 1 SD below the mean to 1 SD above mean.

Results of the interactional terms in Model 6 presented in Table 2 test hypothesis H_{1b} and H_{2b} . The interaction term between minority economic discrimination and economic globalization is positive and statistically significant at a 99% level of confidence. The positive impact of minority economic discrimination on domestic terrorism is stronger at the higher levels of economic globalization. Yet since interactions between continuous variables are difficult to interpret by examining the coefficient values, particularly in maximum-likelihood estimation models, I present visual depiction of the interactive relationship. Figure 4 shows the interaction and includes two graphs, with Figure 4a showing the effect of economic discrimination on domestic terrorism for low (the minimum) and high (the maximum) values of economic globalization (KOF Index), and Figure 4b showing the marginal effect of economic discrimination on domestic terrorism across the values of economic globalization. Figure 4a shows that relatively closed economies (the dotted line) will experience more domestic terrorism when the level of economic discrimination is low. However, as minority economic discrimination index goes over 2, open economies (the solid line) become as vulnerable to domestic terrorism as closed economics are. Therefore, the states practicing high levels of economic discrimination against minorities will be subject to greater number of domestic terrorist incidents when economic globalization increases. Interestingly, when economic discrimination is low, economic globalization reduces domestic terrorism. Figure 4b shows that

the marginal effect of minority economic discrimination on domestic increases as globalization increases.

[FIGURE 4 HERE]

[FIGURE 5 HERE]

Results of the interactional term between political exclusion and weakly institutionalized democracy in Model 6 of Table 2 support hypothesis H_{2b}. A weakly institutionalized democracy will suffer higher levels of domestic terrorism than other regime types when groups are politically excluded from the highest level of government. The positive and statistically significant coefficient of the interaction term between political exclusion and weakly institutionalized democracy at a 99% level of significance support this hypothesis. Figure 5 visually depicts the interaction and includes two graphs, with Figure 5a showing the effect of political exclusion on domestic terrorism for weakly institutionalized democracy and other regime types, and Figure 5b showing the marginal effect of political exclusion on domestic terrorism across regime types. The predicted number of domestic terrorist incidents is greater in weakly institutionalized democracy than in other regimes when the level of political exclusion increases. Similarly, Figure 5b shows that political exclusion has a greater marginal effect on domestic terrorism in weakly institutionalized democracies than in other regimes. Therefore, I find strong support for the hypothesis that political discrimination is likely to increase domestic terrorism more in weakly institutionalized democracies than in other regimes.

Conclusion and Implications

The results from this analysis are generally supportive of the hypotheses that economic globalization and weakly institutionalized democracy in the presence of discrimination increase domestic terrorism by creating grievances as well as mobilization opportunities. I also found that

political exclusion, as well as economic discrimination, increases the levels of domestic terrorism (see Table 2). The finding that minority discrimination is a major predictor of terrorism supports earlier studies (Bradley 2006; Buendia 2005; Ergil 2000; Piazza 2011, 2012; Whittaker 2001), and scholars have emphasized the need for fair treatment of national minorities as a possible policy choice. This study reiterates the same policy recommendation of these scholars. In addition, though, the findings herein have several other implications for policy makers. Firstly, neo-liberals' optimism that an open economy leads to a higher level of economic development, in turn, leading to peace (Hegre, Gissinger and Gleditsch 2003), requires rethinking if a country has an aggrieved minority. For policy makers, promotion of open economy without accommodating the discriminated minority groups may not be a sound policy choice. Overall economic development, after all, may not ensure well-being of all sections of people. Sections of people who are left out in the development process (namely, the minority groups) have incentives to challenge the state. This point, though, does not indicate an inherent negative quality to economic globalization. In fact, the results show that economic globalization has a negative relationship with domestic terrorism. It is the presence of discriminated minorities that is problematic, since domestic terrorism increases with economic globalization only when there are discriminated groups. Therefore, policy makers must eliminate discriminatory practices against national minorities if the country wants to reap the benefits of a globalized economy.

Secondly, democracy has been considered as a panacea to all internal conflicts, including terrorism, in US policy circles. The post -9/11 US foreign policy doctrine claimed: "...freedom and democracy are critical to defeating terror.... Free nations that respect human rights will help overcome hatred, resentment, and the ideologies of murder" (Windsor 2003). The concept of democracy is problematic in that an electoral democracy with no protection for the minority

might facilitate domestic terrorism. Institution building with well-defined mechanisms of minority protection must be a core part of any effort to address terrorist violence. Most institutionalized democracies are rich and strong; therefore, inclusive development and democracy are probably the best routes to internal peace. Rich countries are better able to distribute public goods, and the presence of well-functioning conflict resolution mechanisms in institutionalized democracies makes resorting to extra-constitutional means to achieve political and economic goals a less attractive option. Therefore, the sooner a country reaches high levels of both democracy and development, the less likely it will fall prey to terrorism. Similarly, the shorter the phase of democratic consolidation, the better it is for internal peace. Therefore, this study contributes to the extant literature on terrorism in identifying some important drivers of terrorism; it can provide new directions for policy makers.

[APPENDIX TABLE A HERE]

[APPENDIX TABLE B HERE]

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TABLE 1: Summary Statistics

Variable	Observations	Mean	Std. Dev.	Minimum	Maximum
Domestic Terrorist Incidents	5831	7.81	34.57	0	673
Excluded Population (ln)	4947	1.89	1.56	0	4.59
Minority Economic Discrimination	5791	1.65	1.58	0	4
Economic Globalization Index	4948	48.85	19.37	9.43	98.88
Weakly Institutionalized Democracy	5831	0.24	0.42	0	1
Institutionalized Democracy	5623	0.19	0.39	0	1
Anocracy	5623	0.22	0.42	0	1
Autocracy	5623	0.36	0.48	0	1
Gross Domestic Product pc (ln)	5730	7.82	1.42	4.39	11.42
Population (ln)	5811	8.56	2.11	0.27	14.08
Regime Durability	5823	22.42	27.81	0	198

TABLE 2: Effects of Discrimination, Globalization and Regimes on Domestic Terrorism, 1970-2007

<i>Models</i>	(1)	(2)	(3)	(4)	(5)	(6)
<i>Variables</i>						
Minority Eco. Discrimination	-----	0.488*** (0.023)	0.447*** (0.025)	0.213*** (0.062)	0.452*** (0.025)	0.218*** (0.061)
Excluded Population (ln)	0.176*** (0.023)	-----	0.151*** (0.024)	0.136*** (0.024)	0.096*** (0.026)	0.077*** (0.025)
Economic Globalization Index _{t-1}	-0.008*** (0.002)	-0.009*** (0.002)	-0.006** (0.002)	-0.017*** (0.004)	-0.006*** (0.002)	-0.017*** (0.004)
Weakly Institutionalized Democracy	0.801*** (0.077)	1.033*** (0.078)	1.009*** (0.082)	1.041*** (0.081)	0.668*** (0.124)	0.681*** (0.124)
Excl. Population (ln)*Weakly Institutionalized Democracy	-----	-----	-----	-----	0.169*** (0.046)	0.180*** (0.046)
Min. Eco. Discrimination* Eco. Globalization Index _{t-1}	-----	-----	-----	0.005*** (0.001)	-----	0.005*** (0.001)
Institutionalized Democracy	0.296** (0.132)	0.484*** (0.119)	0.562*** (0.133)	0.601*** (0.135)	0.551*** (0.131)	0.588*** (0.133)
Anocracy	0.404*** (0.062)	0.489*** (0.069)	0.523*** (0.070)	0.550*** (0.070)	0.526*** (0.070)	0.557*** (0.070)
Population(ln)	0.406*** (0.026)	0.403*** (0.022)	0.367*** (0.024)	0.359*** (0.024)	0.370*** (0.024)	0.362*** (0.024)
Regime Durability _{t-1}	0.001 (0.002)	0.000 (0.001)	-0.001 (0.001)	-0.002 (0.001)	-0.001 (0.001)	-0.001 (0.001)
Constant	-2.332*** (0.282)	-3.238*** (0.232)	-3.260*** (0.259)	-2.639*** (0.292)	-3.166*** (0.252)	-2.542*** (0.283)
N Total	4,169	4,646	4,153	4,153	4,153	4,153
N Groups	126	140	126	126	126	126

Standard errors in parentheses *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$ two-tailed tests GEE estimator pooling on country with an AR(1) error specification

TABLE 3: Marginal Change in the Domestic Terrorist Incidents (Model 3 Table 2)

<i>Independent Variable</i>	<i>Value 1</i>	<i>Value 2</i>	<i>Change</i>
Politically Excluded Population (ln)	0.33†	3.42††	+1.17
Minority Economic Discrimination	0.31†	3.45††	+3.79
Economic Globalization _{t-1}	28.28†	65.45††	-0.52
Weakly Institutionalized Democracy	0	1	+4.34
Institutionalized Democracy	0	1	+1.89
Anocracy	0	1	+1.71
Population (ln)	7.12†	11.05††	+3.91

Note: † One Standard Deviation below the Mean. †† One Standard Deviation above the Mean. Changes were calculated by predicting the number of terrorist events (holding all continuous variables at their mean and all the categorical variables at their modal value) for Value 1 of the independent variable and subtracting that from the number of predicted terrorist events for Value 2.

APPENDIX TABLE A: Effects of Discrimination, Economic Globalization and Regime on Domestic Terrorism, 1970-2007 (Robustness)

<i>Models</i>	(1)	(2)	(3)	(4)	(5)	(6)
<i>Variables</i>						
Minority Eco. Discrimination	-----	0.478*** (0.022)	0.427*** (0.025)	0.175*** (0.061)	0.429*** (0.024)	0.172*** (0.060)
Excluded Population(ln)	0.215*** (0.023)	-----	0.172*** (0.023)	0.159*** (0.023)	0.133*** (0.026)	0.116*** (0.026)
Economic Globalization Index _{t-1}	-0.037*** (0.003)	-0.034*** (0.003)	-0.031*** (0.003)	-0.044*** (0.004)	-0.030*** (0.003)	-0.044*** (0.004)
Weakly Institutionalized Democracy	0.550*** (0.083)	0.712*** (0.080)	0.689*** (0.085)	0.733*** (0.085)	0.431*** (0.129)	0.454*** (0.128)
Min. Eco. Discrimination* Eco. Globalization Index _{t-1}	-----	-----	-----	0.006*** (0.001)	-----	0.006*** (0.001)
Excl. Population (in)*Weakly Institutionalized Democracy	-----	-----	-----	-----	0.129*** (0.047)	0.139*** (0.046)
Institutionalized Democracy	-0.480*** (0.134)	-0.254** (0.120)	-0.184 (0.136)	-0.149 (0.137)	-0.189 (0.135)	-0.157 (0.136)
Anocracy	0.262*** (0.070)	0.303*** (0.072)	0.327*** (0.074)	0.362*** (0.074)	0.326*** (0.073)	0.362*** (0.073)
Gross Domestic Product pc (ln) _{t-1}	0.854*** (0.044)	0.685*** (0.039)	0.713*** (0.043)	0.736*** (0.043)	0.694*** (0.042)	0.715*** (0.042)
Population (ln)	0.366*** (0.023)	0.370*** (0.020)	0.328*** (0.022)	0.319*** (0.022)	0.334*** (0.022)	0.325*** (0.022)
Regime Durability _{t-1}	-0.003** (0.001)	-0.002 (0.001)	-0.003** (0.001)	-0.004*** (0.001)	-0.003** (0.001)	-0.003** (0.001)
Constant	-7.094*** (0.343)	-6.872*** (0.295)	-7.034*** (0.329)	-6.512*** (0.346)	-6.875*** (0.325)	-6.330*** (0.342)
N Total	4,118	4,580	4,102	4,102	4,102	4,102
N Groups	125	139	125	125	125	125

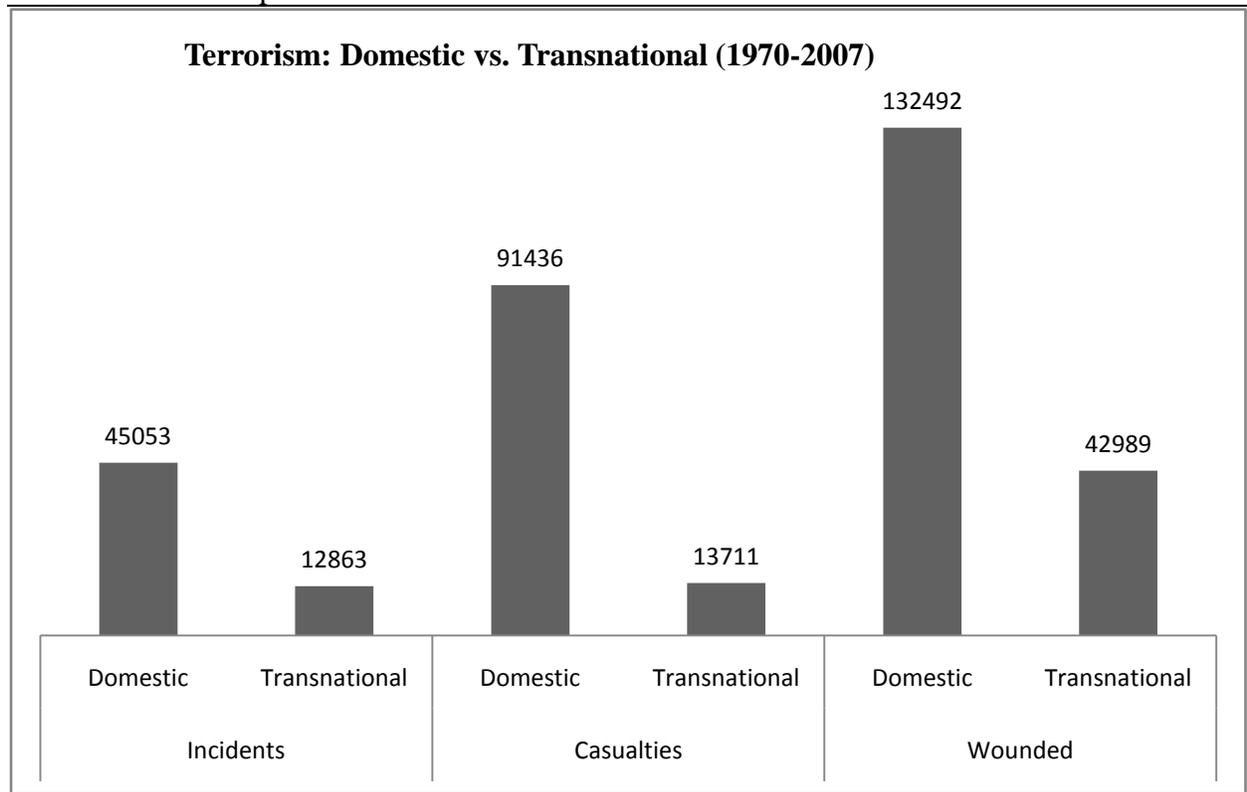
Standard errors in parentheses *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$ two-tailed tests GEE estimator pooling on country with an AR(1) error specification

APPENDIX TABLE B: Domestic Terrorism and Regime Type

<i>Models</i>	(1)	(2)	(3)	(4)
<i>Variables</i>				
Weakly Institutionalized Democracy	0.891*** (0.073)	0.312*** (0.067)	1.453*** (0.107)	-----
Institutionalized Democracy	-0.562*** (0.113)	-1.141*** (0.113)	-----	-1.453*** (0.107)
Anocracy	0.579*** (0.062)	-----	1.141*** (0.113)	-0.312*** (0.067)
Gross Domestic Product pc_{t-1}	0.418*** (0.030)	0.418*** (0.030)	0.418*** (0.030)	0.418*** (0.030)
Population (ln)	0.508*** (0.020)	0.508*** (0.020)	0.508*** (0.020)	0.508*** (0.020)
Regime Durability $_{t-1}$	-0.005*** (0.001)	-0.005*** (0.001)	-0.005*** (0.001)	-0.005*** (0.001)
Autocracy	-----	-0.579*** (0.062)	0.562*** (0.113)	-0.891*** (0.073)
Constant	-6.390*** (0.295)	-5.811*** (0.299)	-6.952*** (0.342)	-5.499*** (0.312)
N Total	5,285	5,285	5,285	5,285
N Groups	161	161	161	161

Standard errors in parentheses *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$
two-tailed tests GEE estimator pooling on country with an AR(1) error specification

FIGURE 1: A Comparison of Domestic and Transnational Terrorism



Source: Enders et al. 2011

FIGURE 2: Discrimination and Domestic Terrorism

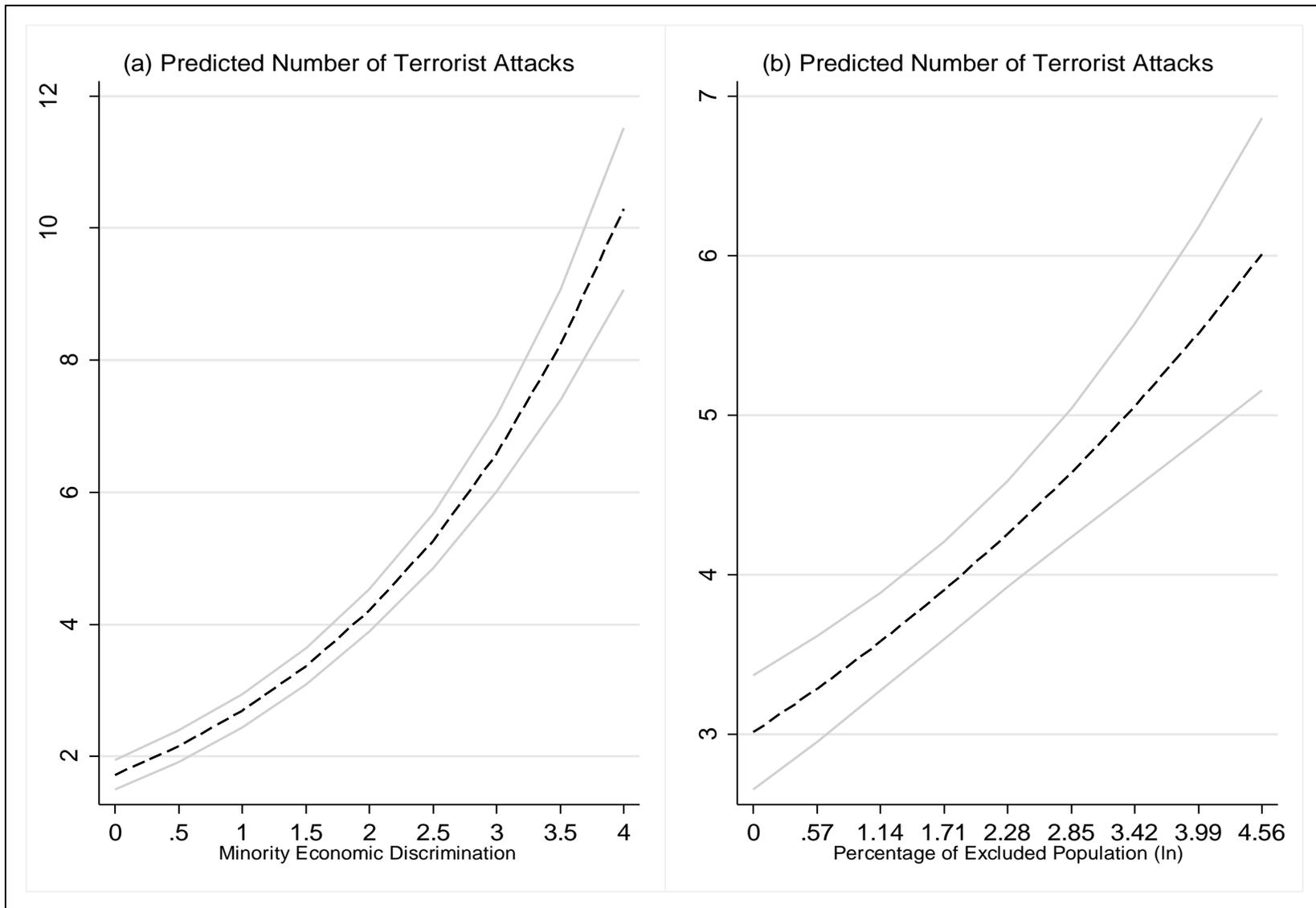


FIGURE 3: Marginal Effects for Significant Variables in Model 3, Table 2

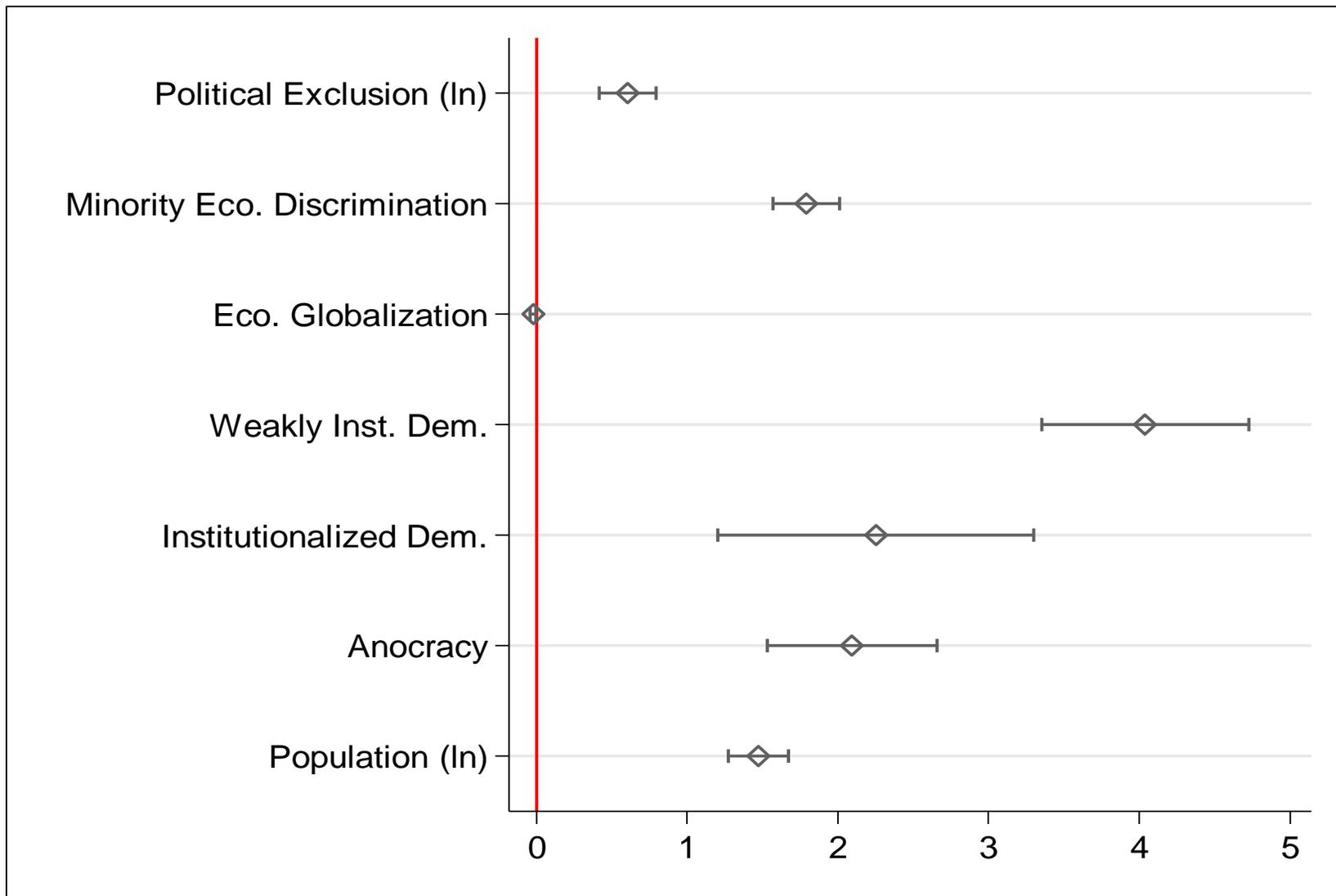


FIGURE 4: Interaction between Economic Discrimination and Economic Globalization

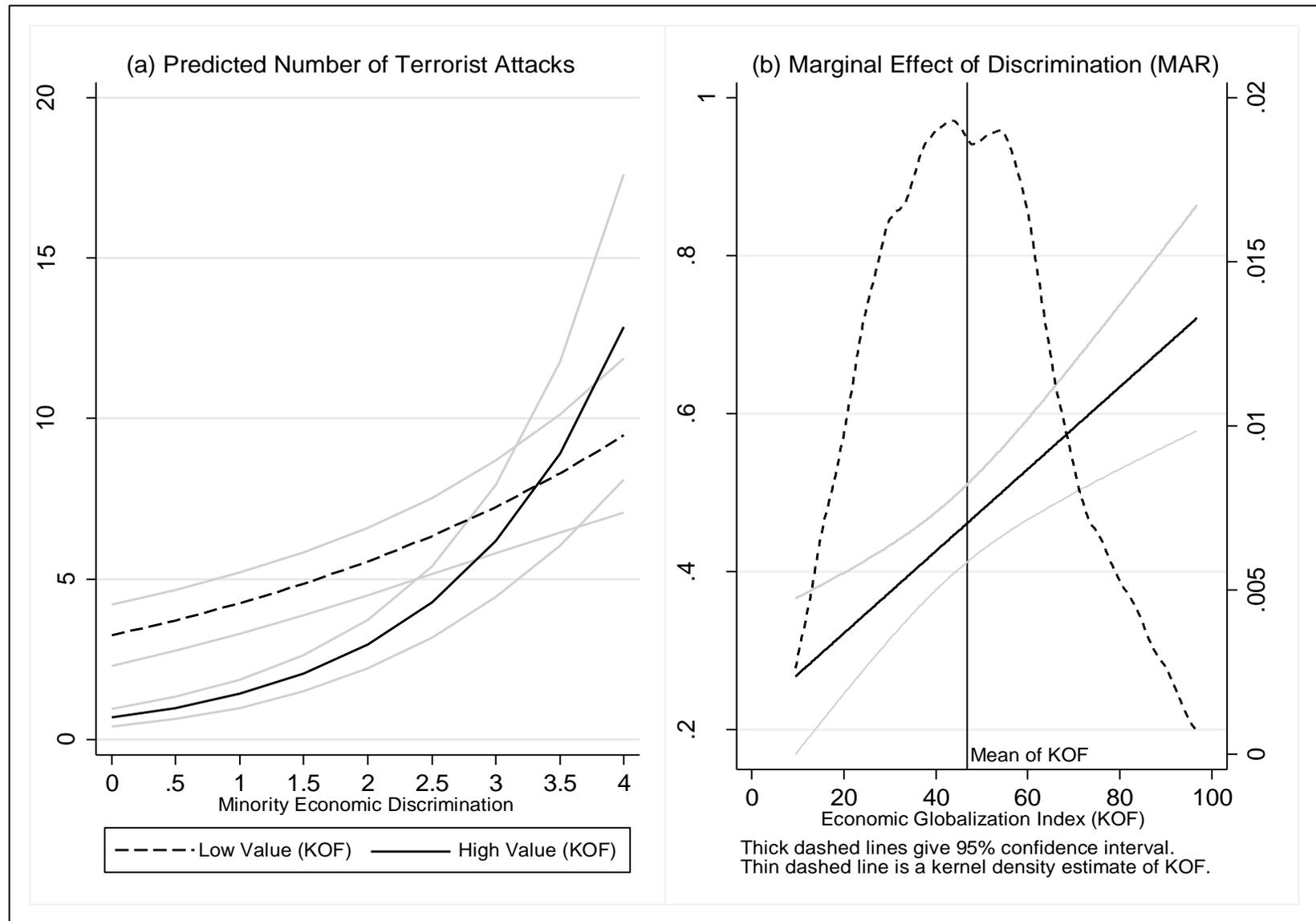


FIGURE 5: Interaction between Discrimination and Regime Type (Weakly Institutionalized Democracy)

