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Aid, terrorism, and foreign direct investment: Empirical insight conditioned on corruption control

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WP/18/049

Aid, Terrorism, and Foreign Direct Investment: Empirical Insight Conditioned on Corruption Control

Forthcoming: International Economic Journal

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Aid, Terrorism, and Foreign Direct Investment: Empirical Insight Conditioned on Corruption Control

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Abstract

This paper examines the effect of foreign aid in the terrorism-FDI nexus while considering the extent of domestic corruption-control (CC). The empirical evidence is based on a sample of 78 developing countries. The following findings are established: the negative effect of terrorism on FDI is apparent only in countries with higher levels of CC; foreign aid dampens the negative effect of terrorism on FDI only in countries with high levels of CC. The result is mixed when foreign aid is subdivided into its bilateral and multilateral components. Our findings are in accordance with the stance that bilateral aid is effective in reducing the adverse effect of terrorism on FDI. Multilateral aid also decreases the adverse effect of other forms of terrorism that can neither be classified as domestic nor as transnational. Policy implications are discussed.

JEL Classification: D74; F21; F35

Keywords: Conflict; Developing countries; Foreign investment; Foreign aid; Terrorism

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1. Introduction

The notion that development assistance is required to help curb the adverse effect of terrorism on foreign direct investment (FDI) flow to developing country is conventionally accepted. This is following the submissions that aid is required for counterterrorism effort in terrorism-afflicted countries since they are poor and lack vital economic resources (Bandyopadhyay and Younas, 2014). After all, foreign aid bolsters a developing country's proactive counterterrorism effort and provides finance against transnational and domestic terrorism (Bandyopadhyay, Sandler and Younas, 2014; Lee, 2015). As well known, terrorist incidence involve threats and violence by some individuals or sub-national groups against non-combatants, and has far-reaching effects such as, increasing the risk and cost of investment, infrastructural damages, reduction in economic output and savings, trade losses and higher insurance premium (Enders, Sachida and Sandler, 2006; Abadie and Gardeazabal, 2008; Keefer and Loayza, 2008; Sandler and Enders, 2008; Bandyopadhyay, Sandler and Younas, 2014; Younas, 2015).

In developing countries, however, the extent to which foreign aid can effectively help in counter-terrorism effort will be met with different institutional and governance challenges. As argued in literature, the institutional structure in respective developing countries (especially the condition of corruption) may likely determine the extent of the government's effort targeted towards the original intention of receiving such foreign aid. Economides, Kalyvitis and Philippopoulos (2008), for instance, provides a theoretical explanation in the light of the distorting effect of foreign aid on private incentives of recipient country's government. The authors argue that foreign aid inflow pushes self-interested officials away from productive work to rent-seeking and resource extraction behaviour. Other authors perceive rent-seeking behaviour in corrupt countries as winning a 'contestable prize' with economic rewards, and foreign aid flow will only increase the size of the 'contestable prize' (see Svensson, 2000; Economides, Kalyvitis and Philippopoulos, 2008). Building on this framework, it implies that the extent to which foreign aid is effective in funding recipient governments' counter-terrorism effort will be conditional on the prevailing level of corruption in the recipient country.

This paper therefore tests the relationship between foreign aid flow, foreign investment outcome and terrorism when conditioned on the prevailing level of corruption control in respective countries using data from 78 developing countries for the period 1984 to 2008. A

dynamic model was estimated for foreign aid, which is categorised as total, bilateral, and multilateral aid, and terrorism is measured as total, domestic, transnational, and unclear terrorism. From our results, we agree with conventional wisdom that terrorism has an adverse effect on foreign investment. We also find, among others, that foreign aid dampens the negative effect of terrorism on foreign investment in only those countries with higher corruption controls. However, when foreign aid is subdivided into its bilateral and multilateral components we find, in accordance with the stance in literature that bilateral aid is effective in reducing the adverse impact of transnational terrorism. We also find that multilateral aid is effective at mitigating the adverse impact of domestic terrorism on FDI, and that multilateral aid also curbs the adverse effect of transnational terrorism on FDI. Multilateral aid is also effective in decreasing the adverse effect of unclear and total terrorisms on FDI.

Our finding is relevant for developing countries based on the need to promote aid effectiveness and not just have a blanket proposal that foreign aid is an effective instrument for counter-terrorism efforts in developing countries. Studies like Bandyopadhyay, Sandler and Younas (2014) and Lee (2015) have made outstanding contributions by empirically justifying how foreign aid can help curb the adverse effect of terrorism on FDI. The conclusion of these studies is one side of the coin. The other side is how effective can aid be considering the institutional environment in aid recipient countries, which is an important determinant of the effectiveness of aid. We condition foreign aid flow on the prevailing institutional environment to determine the effect of terrorism on foreign investment in order to propagate the narrative that aid effectiveness for counterterrorism effort will only be as effective as the prevailing institutional structure in the recipient countries. In addition, our study provides substantive policy conclusions that can be applicable for allocating or monitoring aid flow to developing countries for counterterrorism efforts. Noting that most developing countries are challenged by prevailing corrupt leadership (Jo-Ansie, 2007; Olken and Pande, 2011; Asongu, 2013a, b; Kim, 2013; Efobi, 2014), therefore, recommending a 'blanket' foreign aid increase as a remedying tool for counterterrorism financing may not be sustainable, and may not have a long-lasting effect. Our study highlights the need to consider the corruption level in countries before aid allocation by conditioning our estimated results based on low or high corrupt countries.

To the best of our knowledge, there are no existing research that considers the interaction between country' institutional structure and foreign aid, and its effect on the relationship

between terrorism and foreign investment. At best, the available research on institutions and terrorism that exist confirms that a strong institutional has a negative effect on different categories of terrorism (see Asongu et al, 2017). The literature on the effectiveness of foreign aid is also lacking substantive conclusion on the interaction between countries' corruption level and foreign aid effectiveness to reduce the outcome of violence. The debate in the foreign aid literature has largely focused on the bi-directional relationship between institutional structure and foreign aid flow (e.g. Alesina and Weder, 1999; Svensson, 2000; Knack, 2001; Tavares, 2003; Okada and Samreth, 2012). Further evidence in the aid literature has also considered foreign aid flow impact on terrorism (see Azam and Delacroix, 2006; Azam and Thelen. 2010; Bapat, 2011). The notable studies that we identified, even when considering foreign aid, foreign investment and terrorism literature, include Bandyopadhyay, Sandler and Younas (2014) and Lee (2015). Yet, the conclusions in these did not provide clear answers to the research issues that are discussed in this paper.

The remainder of the paper is organised as follows: the research method is discussed and outlined respectively in the second section. The third section presents the empirical analysis and discussion of results. The fourth section concludes with policy implications. Suggestions for future studies are also presented in the fourth section.

2. Research Method

Variables and Data

Consistent with Bandyopadhyay et al. (2014), the data consists of three-year non-overlapping intervals starting from 1984-2008. The data type was motivated to improve the panel balancing. Also, this kind of data is important in ensuring a symmetric relationship between the variables of interest considering that terrorism occurrences, for instance, are time invariant events. Thus, its occurrences follow a stochastic trend and its variability will likely be low. Therefore a non-overlapping average will create a symmetric trend for our kind of analysis.

The main explained variable is the volume of foreign direct investment (FDI)¹ measured as the percentage of the net FDI flows to GDP (FDI/GDP). Terrorism variable includes

¹According to the 2013 definition of UNCTAD, FDI includes associates and subsidiaries, and consist of the net sales of shares and loans to the parent company plus the parent firm's share of the affiliate's reinvested earnings plus total net intra-company loans. FDI flows also include the increase in reinvested earnings plus the net increase in funds received from the foreign direct investor. FDI flows with a negative sign (reverse flows)

measurement for domestic, transnational, unclear, and total terrorism. Total terrorism is the incidence of terrorism that is a summation of both the domestic, transnational and unclear terrorism. Domestic terrorism includes all incidences of terrorist activities that involves the nationals of the venue country; implying that the perpetrators, the victims, the targets and supporters are all from the venue country. Transnational terrorism includes those acts of terrorism that concerns at least two countries. This implies that the perpetrator, supporters, and incidence may be from/in one country, but the victims and targets are from another country. Unclear terrorism constitutes those incidences of terrorism that can neither be defined as domestic nor transnational terrorism. The terrorism data is an annual event data of terrorist activities, which is domiciled in the Global Terrorism Database (GTD) of the National Consortium for the Study of Terrorism and Responses to Terrorism (START, 2009). The motivation of employing different terrorism indicators is to avail more room for policy implications.

Foreign aid is another important variable in our study. Our foreign aid variable is classified into two groups – bilateral and multilateral aid flow. These classifications are motivated to take into consideration the debate in the aid literature on the differential impact of these types of aid on economic outcomes (see Harms and Lutz, 2006; Caselli and Feyrer, 2007; Asiedu, Jin and Nandwa, 2009; Kimura and Todo, 2010; Selaya and Sunesen, 2012; Asongu and Nwachukwu, 2017, 2018). Interested readers can consider the cited literature for more exposition. More so, just like the inclusion of different indicators of terrorism, the foreign aid indicators were also included for robust policy conclusions.

Four control variables were included in our analysis following the literature on the determinant of foreign investment inflow (e.g. Asiedu, 2006; Asiedu and Lien, 2011). They include the GDP growth rate, trade openness, inflation rate and number of telephone users per 100 people. The inclusions of the control variables are justified as follows. GDP growth rate, for instance, reflects the income level of the FDI host country and thus shows the extent of the return of investment for foreign investors. Trade openness measures the extent to which a country's economy is opened to investment and trade. In essence, some forms of investment, especially those that are export oriented are favored by an opened economy (Bandyopadhyay, Sandler and Younas, 2014). Inflation rate reflects the specific macroeconomic shocks that are

indicate that at least one of the components in the above definition is negative and not offset by positive amounts of the remaining components (see definition in <http://unctad.org/en/Pages/DIAE/FDI-Flows.aspx>).

existent in the country, and it is an important determinant of FDI location (Asiedu and Lien, 2011). The number of telephone users per 100 people is an indicator of the extent of infrastructural development in the country. This variable is an indicator of the level of infrastructural development in the FDI host country (Asiedu, 2006). These four indicators are some of the consistent determinants of foreign investment in developing countries, and they are sourced from the World Bank World Development Indicators.

The conditioning variable (i.e. corruption-control) measures the extent to which public power is exercised for private gain, including both petty and grand forms of corruption (Kauffman et al, 2010). This variable is not included directly in the model; however, it was used to condition the relationship between foreign aid, terrorism and FDI. In essence, the relationships between the variables were tested at different corruption thresholds. The median of corruption-control was used as the threshold to enable comparative sample sizes for low and high corruption-control subsamples. The corruption-control variable was obtained from World Governance Indicators. Consistent with Brambor (2006), the impact of the modifying variable is interpreted as a marginal effect

Table 1 presents the variable definition and some summary statistics. On average, countries within the data set suffered about 18.58 total terrorist attacks per year, while domestic, transnational, and unclear terrorist attacks were 14.29, 2.32, and 1.97 attacks per year. Foreign direct investment was only 2.494 of the GDP of the sampled countries, while total foreign aid flow logged value was 5.55, with bilateral aid flow (5.18) being more than multilateral aid (4.16). The corruption control value on the average was -0.295, which is lower than the threshold for good corruption control (i.e. 0.00). The average GDP growth rate was 3.852, with a standard deviation of 3.467. This implies that the sampled countries are similar in terms of economic growth. The value of the average trade openness, infrastructure, and inflation rate was 4.118, 1.475, and 2.414. These values are in their logarithmic form to reduce the distributions' skewness.

Table 1: Definition and Summary Statistics of Variables

Variables	Identifiers and Definitions	Mean	S.D	Min	Max	Obs.
Foreign Investment	<i>FDI</i> , Foreign Direct Investment, net inflows (% of GDP)	2.494	3.24	-8.875	26.067	612
GDP growth	<i>GDPg</i> , GDP growth rate (annual %)	3.852	3.467	-10.933	17.339	612
Trade Openness	<i>LnTrade</i> , Log of Exports plus Imports of Commodities (% of GDP)	4.118	0.534	2.519	5.546	612
Infrastructure	<i>LnTel</i> , Log of Number of Telephone lines (per 100 people)	1.475	1.017	0.091	4.031	616
Inflation	<i>LnInflation</i> , Consumer Price Index (% of annual)	2.414	1.384	-3.434	9.136	581
Bilateral Aid	<i>LnBilaid</i> , Log of Bilateral aid, net disbursement (million USD)	5.181	1.286	0.765	8.362	602
Multilateral Aid	<i>LnMulaid</i> , Log of Multilateral aid, net disbursement (million USD)	4.163	1.518	-1.249	7.105	600
Total Aid	<i>LnTotalaid</i> , Log of Total aid, net disbursement (million USD)	5.550	1.276	0.800	8.495	608
Domestic terrorism	<i>Domter</i> , Number of Domestic terrorism incidents	14.292	45.179	0.000	419.33	624
Transnational terrorism	<i>Tranater</i> , Number of Transnational terrorism incidents	2.316	6.127	0.000	63.000	624
Unclear terrorism	<i>Unclter</i> , Number of terrorism incidents whose category is unclear	1.972	7.479	0.000	86.000	624
Total terrorism	<i>Totter</i> , Total number of terrorism incidents	18.581	55.595	0.000	477.66	624
Corruption _Control	<i>CC</i> , Corruption control	-0.295	0.516	-0.206	1.539	624

Note: S.D: Standard Deviation; Min-Minimum; Max-Maximum; Obs.: Observations.

The pair wise correlations to check the bivariate association between the variables are presented in Table 2. From a preliminary assessment, only the terrorism and foreign aid variables are highly correlated, respectively. These correlations do not pose a problem for our analysis considering that the variables were not combined in single regression estimation.

Table 2: Pairwise Correlation Matrix

FDI	Control Variables				Foreign Aid			Terrorism Dynamics					CC
	GDPg	LnTrade	LnTel	LnInflation	LnBilaid	LnMulaid	LnTotalaid	Domter	Tranater	Unclter	Totter		
1.000	0.193	0.430	0.263	-0.113	-0.049	0.001	-0.038	-0.118	-0.093	-0.112	-0.121	-0.011	FDI
	1.000	0.089	0.065	-0.236	0.195	0.178	0.227	-0.058	-0.021	-0.042	-0.055	-0.004	GDPg
		1.000	0.296	-0.230	-0.267	-0.289	-0.282	-0.236	-0.206	-0.240	-0.246	0.027	LnTrade
			1.000	-0.121	-0.376	-0.514	-0.450	0.023	0.072	-0.003	0.026	0.269	LnTel
				1.000	-0.047	-0.023	-0.039	0.171	0.164	0.091	0.169	-0.038	LnInflation
					1.000	0.721	0.970	0.116	0.088	0.093	0.117	-0.172	LnBilaid
						1.000	0.833	0.014	-0.039	0.069	0.016	-0.245	LnMulaid
							1.000	0.093	0.059	0.094	0.094	-0.209	LnTotalaid
								1.000	0.743	0.733	0.993	0.068	Domter
									1.000	0.528	0.785	0.052	Tranater
										1.000	0.789	0.025	Unclter
											1.000	0.065	Totter
												1.000	CC

Note: The identifiers are as earlier defined in Table 1.

2.2 Estimation Strategy

The following equations in levels (equation 1) and difference (equation 2) summarizes the estimable model.

$$FDI_{i,t} = \sigma_0 + \sigma_1 FDI_{i,t-1} + \sigma_2 A_{i,t} + \sigma_3 T_{i,t} + \sigma_4 AT_{i,t} + \sigma_5 GDPg_{i,t} + \sigma_6 Trade_{i,t} + \sigma_7 Infra_{i,t} + \sigma_8 Infla_{i,t} + \eta_i + \xi_t + \varepsilon_{i,t} \quad (1)$$

$$FDI_{i,t} - FDI_{i,t-1} = \sigma_1 (FDI_{i,t-1} - FDI_{i,t-2}) + \sigma_2 (A_{i,t} - A_{i,t-1}) + \sigma_3 (T_{i,t} - T_{i,t-1}) + \sigma_4 (AT_{i,t} - AT_{i,t-1}) + \sigma_5 (GDPg_{i,t} - GDPg_{i,t-1}) + \sigma_6 (Trade_{i,t} - Trade_{i,t-1}) + \sigma_7 (Infra_{i,t} - Infra_{i,t-1}) + \sigma_8 (Infla_{i,t} - Infla_{i,t-1}) + (\xi_t - \xi_{t-1}) + (\varepsilon_{i,t} - \varepsilon_{i,t-1}) \quad (2)$$

Where the time and country identifiers are represented by ‘t’ and ‘i’, respectively. From the model, *FDI* is Foreign Direct Investment; *A*, Foreign aid; *T*, Terrorism; *AT*, interaction between Foreign aid (*A*) and Terrorism (*T*); *GDPg*, GDP growth; *Trade*, Trade Openness; *Infra*, Infrastructure; *Infla*, Inflation; η_i is a country-specific effect; ξ_t is a time-specific constant; and $\varepsilon_{i,t}$ an error term. The *two-step* procedure is preferred to the *one-step* alternative in the model specification because it corrects for issues of heteroscedasticity that may likely arise from the estimable data.

The adopted panel System GMM estimation strategy employs forward orthogonal deviations, instead of first differencing. Accordingly, preference is given to the Roodman (2009a, b) extension of Arellano and Bover (1995) because in the presence of cross-sectional dependence, the use of forward orthogonal deviations produces more efficient estimates (Love and Zicchino, 2006; Baltagi, 2008; Tchamyou and Asongu, 2017; Tchamyou, 2018a, 2018b; Tchamyou *et al.*, 2018; Boateng *et al.*, 2018).

3. Presentation of Empirical Results

Tables 3, 4 and 5 present results corresponding to bilateral aid, multilateral aid and total aid respectively. All tables are structured in two panels. While *Panel A* presents results on domestic and transnational terrorisms, *Panel B* shows the findings corresponding to unclear and total terrorisms. The median of corruption-control is used as the threshold. Hence, three regressions are required for every specification to assess the baseline effect, impact when corruption-control is lower or equal to the median, and the effect when corruption-control is higher than the median. For all tables, panels and terrorism dynamics, the first set (second set) of specifications is without (with) control variables.

The information criteria across panels and specifications broadly confirm the validity of the models. The null hypothesis of the second-order Arellano and Bond autocorrelation test (*AR2*) in difference is rejected for the most part. Likewise, the null hypothesis of the Sargan (Hansen) test for over-identification is also overwhelmingly rejected in the most part. This confirms the validity of the instruments. It should be noted that while the Sargan over-identifying restrictions (*OIR*) test is not robust and not weakened by instruments, the Hansen *OIR* test is robust and weakened by instruments. We have ensured that in the specifications, the number of instruments is lower than the number of cross-sections, to mitigate instrument proliferation or restrict over-identification. The Difference in Hansen Test (*DHT*) for the exogeneity of instruments confirms the validity of the Hansen *OIR* results. The Fisher tests for joint validity of estimated coefficients are consistently valid across specifications and panels.

We first discuss results that are broadly consistent with all Tables, before engaging Table-specific outcomes. First, the negative effect of terrorism on *FDI* is apparent only in the sample with higher levels of corruption control (*CC*). In the same spirit, the foreign aid flow dampens the negative effect of terrorism on *FDI* only in the sample with higher levels of *CC*. The result is mixed when foreign aid is subdivided into bilateral and multilateral aid. While our findings are in accordance with the stance that bilateral aid is effective in reducing the adverse impact of transnational terrorism (see Right Hand Side (*RHS*) of Panel A in Table 3), the position that only multilateral aid is effective in mitigating the adverse impact of domestic terrorism on *FDI* is not confirmed since multilateral aid also curbs the adverse effect of transnational terrorism on *FDI* (see *RHS* of Panel A in Table 4). Multilateral aid also decreases the adverse effect of unclear and total terrorisms on *FDI* (see Panel B of Table 4). This finding agrees with Bandyopadhyay, Sandler and Younas (2014) in some form. For instance, foreign aid dampens the effect of terrorism on foreign investment is valid for the sub-sample in which *CC* levels are high (or above the median).

The positive effect of domestic terrorism on *FDI* is higher when *CC* levels are low in specifications without control variables. This tendency is broadly consistent with unclear and total terrorisms in Panel B. The threshold point at which the modifying variable or 'bilateral aid' mitigates the adverse effect of transnational terrorism is within range. Accordingly: 6.666 (0.140/0.021) is within the maximum range of 8.362 disclosed in the summary statistics. There is also an overwhelming evidence of convergence across specifications and panels. The maximum rate of convergence is 27.06% per annum [pa (0.812/3)], while the minimum rate is

18.46% [pa (0.554/3)]. With the exceptions of first specifications without control variables for domestic, transnational and total terrorisms, the convergence rate is slightly slower in countries with higher *CC* levels. It is important to note that the information criterion for the establishment of significance is when the absolute value of the lagged endogenous variable is situated between 0 and 1.

In the computation of the convergence rate, three divides the lagged value because we have used 3-year non-overlapping intervals to mitigate short-run or business cycle disturbances. The interested reader can find more information on the computation of convergence rates (in presence of data averages) in recent convergence literature, notably: Asongu (2013c) and Asongu (2014b). Most of the significant control variables have the expected signs. While trade openness and GDP growth intuitively increase FDI, low and stable inflation are significant positive boosts to FDI location decisions. It should be noted that the mean of inflation is 2.414.

Table 3: FDI, Bilateral aid, Terrorism and Corruption-Control

Dependent Variable: Foreign Direct Investment Inflows

Panel A: Domestic and Transnational Terrorisms

	Domestic Terrorism (Domter)						Transnational Terrorism (Tranater)					
	CC	CC ≤M	CC >M	CC	CC ≤M	CC >M	CC	CC ≤M	CC >M	CC	CC ≤M	CC >M
	Constant	0.905 (0.384)	-0.709 (0.570)	4.070*** (0.000)	-2.840 (0.338)	6.469 (0.147)	-5.76*** (0.003)	0.382 (0.640)	2.040* (0.074)	2.123* (0.085)	-5.580 (0.039)	5.476* (0.094)
FDI(-1)	0.812*** (0.000)	0.613*** (0.000)	0.670*** (0.000)	0.681*** (0.000)	0.582*** (0.000)	0.554*** (0.000)	0.670*** (0.000)	0.651*** (0.000)	0.676*** (0.000)	0.652*** (0.000)	0.595*** (0.000)	0.574*** (0.000)
Domter	0.022** (0.017)	0.405** (0.010)	-0.006 (0.373)	0.029*** (0.000)	0.252* (0.096)	-0.004 (0.353)	---	---	---	---	---	---
Tranater	---	---	---	---	---	---	0.024 (0.583)	0.146 (0.443)	-0.086 (0.124)	0.052 (0.278)	0.021 (0.887)	-0.140** (0.017)
LnBilaid	0.169 (0.318)	0.358 (0.170)	-0.141 (0.451)	0.337** (0.031)	0.148 (0.514)	0.236* (0.096)	0.031 (0.842)	-0.029 (0.881)	-0.174 (0.396)	0.200 (0.191)	-0.134 (0.468)	0.221 (0.188)
Domter× LnBilaid	-0.004** (0.011)	-0.077** (0.011)	0.001 (0.510)	-0.005*** (0.088)	-0.048 (0.109)	0.001 (0.557)	---	---	---	---	---	---
Tranater× LnBilaid	---	---	---	---	---	---	-0.004 (0.599)	-0.025 (0.472)	0.013 (0.172)	-0.009 (0.349)	-0.003 (0.917)	0.021** (0.035)
GDP growth	---	---	---	0.046 (0.229)	0.001 (0.993)	0.009 (0.809)	---	---	---	0.052 (0.118)	0.001 (0.972)	0.016 (0.562)
LnTrade	---	---	---	0.600 (0.336)	-1.264 (0.231)	1.889*** (0.000)	---	---	---	1.188* (0.051)	-0.881 (0.209)	2.144*** (0.000)
LnInflation	---	---	---	0.241* (0.050)	0.123 (0.422)	-0.041 (0.697)	---	---	---	0.212 (0.079)	0.254** (0.019)	-0.026 (0.797)
LnInfrastructure	---	---	---	-0.084 (0.539)	0.249 (0.279)	0.024 (0.838)	---	---	---	-0.278 (0.088)	0.177 (0.290)	0.014 (0.943)
AR(1)	(0.001)	(0.010)	(0.011)	(0.002)	(0.026)	(0.008)	(0.001)	(0.002)	(0.005)	(0.001)	(0.003)	(0.007)
AR(2)	(0.422)	(0.304)	(0.355)	(0.508)	(0.235)	(0.388)	(0.403)	(0.593)	(0.414)	(0.525)	(0.471)	(0.429)
Sargan OIR	(0.053)	(0.533)	(0.652)	(0.007)	(0.392)	(0.103)	(0.024)	(0.044)	(0.530)	(0.001)	(0.000)	(0.086)
Hansen OIR	(0.214)	(0.834)	(0.736)	(0.232)	(0.875)	(0.434)	(0.271)	(0.446)	(0.622)	(0.384)	(0.477)	(0.492)
DHT for instruments												
(a) Instruments in levels												
H excluding group	(0.494)	(0.628)	(0.561)	(0.612)	(0.923)	(0.252)	(0.524)	(0.405)	(0.878)	(0.443)	(0.585)	(0.470)
Dif(null, H=exogenous)	(0.149)	(0.776)	(0.680)	(0.134)	(0.668)	(0.569)	(0.190)	(0.426)	(0.390)	(0.352)	(0.376)	(0.462)
(b) IV (years, eq(diff))												
H excluding group	(0.342)	(0.578)	(0.903)	(0.260)	(0.932)	(0.586)	(0.070)	(0.167)	(0.692)	(0.240)	(0.390)	(0.483)
Dif(null, H=exogenous)	(0.193)	(0.904)	(0.441)	(0.293)	(0.320)	(0.219)	(0.739)	(0.935)	(0.443)	(0.711)	(0.611)	(0.437)
Fisher	71.51***	22.55***	111.9***	33.60***	22.28***	160.7***	51.50***	25.80***	35.39***	24.18***	27.78***	34.93***
Instruments	21	19	21	37	35	37	21	19	21	37	35	37
Countries	78	68	75	77	67	72	78	68	75	77	67	72

Observations	514	300	214	483	284	199	514	300	214	483	284	199
Panel B: Unclear and Total Terrorisms												
	Unclear Terrorism (Unclter)						Total Terrorism (Totter)					
	CC	CC≤M	CC>M	CC	CC≤M	CC>M	CC	CC≤M	CC>M	CC	CC≤M	CC>M
Constant	0.438 (0.651)	1.340 (0.117)	3.207** (0.040)	-2.764 (0.218)	2.847 (0.207)	-7.21*** (0.001)	0.748 (0.476)	0.727 (0.535)	2.099* (0.074)	-3.849 (0.160)	5.115 (0.190)	-7.21*** (0.000)
FDI(-1)	0.726*** (0.000)	0.746*** (0.000)	0.710*** (0.000)	0.668*** (0.000)	0.626*** (0.000)	0.602*** (0.000)	0.786*** (0.000)	0.663*** (0.000)	0.675*** (0.000)	0.673*** (0.000)	0.602*** (0.000)	0.561*** (0.000)
Unclter	0.042 (0.363)	0.157** (0.027)	-0.054 (0.270)	0.036 (0.521)	0.059 (0.257)	-0.040 (0.225)	---	---	---	---	---	---
Totter	---	---	---	---	---	---	0.017** (0.018)	0.152** (0.042)	-0.006 (0.267)	0.019*** (0.000)	0.116 (0.194)	-0.005 (0.213)
LnBilaid	0.255* (0.078)	0.087 (0.574)	0.016 (0.914)	0.239 (0.126)	-0.057 (0.704)	0.365** (0.012)	0.211 (0.224)	0.245 (0.300)	-0.149 (0.417)	0.334** (0.033)	0.179 (0.380)	0.226 (0.112)
Unclter × LnBilaid	-0.009 (0.281)	-0.029** (0.018)	0.008 (0.309)	-0.007 (0.470)	-0.013 (0.150)	0.008 (0.176)	---	---	---	---	---	---
Totter× LnBilaid	---	---	---	---	---	---	-0.003** (0.014)	-0.028** (0.047)	0.001 (0.409)	-0.003*** (0.000)	-0.021 (0.211)	0.001 (0.344)
GDP growth	---	---	---	0.066* (0.072)	-0.001 (0.993)	0.012 (0.749)	---	---	---	0.058 (0.123)	-0.006 (0.905)	0.012 (0.739)
LnTrade	---	---	---	0.301 (0.493)	-0.282 (0.508)	1.672*** (0.000)	---	---	---	0.484 (0.457)	-1.002 (0.260)	1.920*** (0.000)
LnInflation	---	---	---	0.313*** (0.006)	0.210* (0.084)	-0.017 (0.864)	---	---	---	0.263** (0.036)	0.072 (0.584)	-0.034 (0.749)
LnInfrastructure	---	---	---	-0.106 (0.430)	0.134 (0.338)	0.202 (0.153)	---	---	---	-0.092 (0.519)	0.234 (0.281)	0.031 (0.798)
AR(1)	(0.001)	(0.001)	(0.002)	(0.002)	(0.002)	(0.005)	(0.001)	(0.002)	(0.009)	(0.002)	(0.007)	(0.008)
AR(2)	(0.433)	(0.730)	(0.321)	(0.551)	(0.502)	(0.387)	(0.415)	(0.449)	(0.364)	(0.527)	(0.333)	(0.399)
Sargan OIR	(0.070)	(0.102)	(0.600)	(0.005)	(0.000)	(0.067)	(0.051)	(0.300)	(0.642)	(0.006)	(0.128)	(0.098)
Hansen OIR	(0.901)	(0.356)	(0.802)	(0.447)	(0.590)	(0.473)	(0.165)	(0.873)	(0.726)	(0.218)	(0.882)	(0.455)
DHT for instruments												
(a) Instruments in levels												
H excluding group	(0.692)	(0.507)	(0.650)	(0.538)	(0.737)	(0.201)	(0.549)	(0.615)	(0.898)	(0.619)	(0.908)	(0.267)
Dif(null, H=exogenous)	(0.847)	(0.276)	(0.720)	(0.368)	(0.415)	(0.679)	(0.099)	(0.839)	(0.494)	(0.122)	(0.696)	(0.580)
(b) IV (years, eq(diff))												
H excluding group	(0.641)	(0.769)	(0.755)	(0.465)	(0.813)	(0.597)	(0.170)	(0.590)	(0.943)	(0.225)	(0.950)	(0.592)
Dif(null, H=exogenous)	(0.887)	(0.103)	(0.642)	(0.381)	(0.123)	(0.257)	(0.257)	(0.961)	(0.398)	(0.329)	(0.274)	(0.239)
Fisher	101.6***	46.10***	74.38***	34.85***	56.04***	35.64***	68.89***	27.43***	103.7***	32.73***	28.08***	102.8***
Instruments	21	19	41	37	35	37	21	19	21	37	35	37
Countries	78	68	75	77	67	72	78	68	75	72	67	72
Observations	514	300	214	483	284	199	514	300	214	483	284	199

*, **, ***: significance levels of 10%, 5% and 1% respectively. *Bilaid*: Bilateral aid. *CC*: Corruption-Control. *M*: Median of Corruption-Control (-0.1009844). *DHT*: Difference in Hansen Test for Exogeneity of Instruments' Subsets. *Dif*: Difference. *OIR*: Over-identifying Restrictions Test. The significance of bold values is twofold. 1) The significance of estimated coefficients, Hausman test and the Fisher statistics. 2) The failure to reject the null hypotheses of: a) no autocorrelation in the *AR(1)* and *AR(2)* tests and; b) the validity of the instruments in the Sargan *OIR* test.

Like in Table 3, we find in Table 4 that the positive effect of domestic terrorism on FDI is higher when *CC* levels are low, especially in specifications without control variables. This tendency is broadly consistent with unclear and total terrorisms in *Panel B* respectively for specifications with and without control variables. Threshold points at which multilateral aid mitigates the adverse effects of terrorism are broadly within range, with the slight exception of domestic terrorism.

Focusing on domestic terrorism, it is 8 (0.008/0.001) and not within range because the maximum in the range is 7.105. With respect to transnational terrorism, 7.1 (0.071/0.010) is just within the limits of the maximum range (or 7.105). For unclear terrorism, 4.73 (0.71/0.15) is within range and 7 (0.007/0.001) is also within range for total terrorism. Regarding

evidences of convergence, the following can be established: the maximum rate of convergence is 27.36% (0.821/3) *pa*, while the minimum rate is 16.76% *pa* (0.503/3). This is only applicable with the exceptions of first specifications without control variables for domestic, unclear and total terrorisms. The convergence rate is slightly slower in countries with higher *CC* levels. Most of the significant control variables have the expected signs.

In addition to the explanations provided for the effects of GDP growth and trade openness earlier discussed, two more interesting new patterns are worth discussing. First, trade openness and GDP growth have negative (positive) effects in the sub-sample with low (high) *CC* levels. This is consistent with intuition and the predictions of economic theory. Accordingly, the presence of low levels of corruption-control could potentially dissuade FDI, even in the presence of burgeoning economic growth and trade (Musila and Sigué, 2007, 2010). Second, there is a slight exception of infrastructure having a negative effect of FDI in the LHS of *Panel B*. The argument for this effect is not very strong because it is significant at the 10% level. However, a possible explanation may be the use of mobile phone applications for activities that discourages FDI in the sub-sample with high *CC* levels. This interpretation should be treated with caution because the argument is not consistently significant across samples and panels.

Table 4: FDI, Multilateral aid, Terrorism and Corruption-Control

	Dependent Variable: Foreign Direct Investment Inflows											
	Panel A: Domestic and Transnational Terrorisms											
	Domestic Terrorism (Domter)						Transnational Terrorism (Tranater)					
	CC	CC ≤M	CC >M	CC	CC ≤M	CC >M	CC	CC ≤M	CC >M	CC	CC ≤M	CC >M
Constant	-0.161 (0.800)	-1.567* (0.099)	1.184* (0.092)	-5.061* (0.094)	0.916 (0.678)	-2.043 (0.400)	-0.065 (0.934)	-0.955 (0.292)	4.764*** (0.000)	-4.189 (0.131)	2.858 (0.218)	-1.557 (0.557)
FDI(-1)	0.820*** (0.000)	0.651*** (0.000)	0.779*** (0.000)	0.722*** (0.000)	0.658*** (0.000)	0.581*** (0.000)	0.766*** (0.000)	0.738*** (0.000)	0.608*** (0.000)	0.733*** (0.000)	0.630*** (0.000)	0.503*** (0.000)
Domter	0.006*** (0.000)	0.034** (0.031)	-0.003 (0.197)	0.005** (0.048)	0.014 (0.289)	-0.008*** (0.000)	---	---	---	---	---	---
Tranater	---	---	---	---	---	---	0.031 (0.120)	0.091 (0.159)	-0.035** (0.020)	0.042** (0.031)	0.082 (0.228)	-0.071*** (0.000)
LnMulaid	0.180 (0.248)	0.599*** (0.006)	-0.157 (0.203)	0.249* (0.051)	0.442** (0.027)	-0.185 (0.240)	0.176 (0.247)	0.371 (0.080)	-0.184 (0.284)	0.212* (0.068)	0.543** (0.024)	-0.226 (0.106)
Domter× LnMulaid	-0.001** (0.017)	-0.007 (0.189)	0.001 (0.409)	-0.001* (0.083)	-0.004 (0.337)	0.001*** (0.003)	---	---	---	---	---	---
Tranater× LnMulaid	---	---	---	---	---	---	-0.007 (0.250)	-0.013 (0.544)	0.004 (0.313)	-0.008 (0.188)	-0.027 (0.309)	0.010** (0.014)
GDP growth	---	---	---	0.044 (0.227)	-0.080* (0.056)	0.066* (0.055)	---	---	---	0.036 (0.333)	-0.071 (0.120)	0.039 (0.160)
LnTrade	---	---	---	1.250* (0.065)	-0.601 (0.209)	1.566*** (0.000)	---	---	---	1.086* (0.064)	-1.173** (0.033)	1.508*** (0.005)
LnInflation	---	---	---	0.249* (0.049)	0.193 (0.133)	0.046 (0.665)	---	---	---	0.229* (0.053)	0.293** (0.020)	0.002 (0.983)
LnInfrastructure	---	---	---	-0.122 (0.501)	0.148 (0.405)	-0.354 (0.142)	---	---	---	-0.116 (0.507)	0.252 (0.166)	-0.324 (0.170)
AR(1)	(0.001)	(0.002)	(0.006)	(0.002)	(0.003)	(0.008)	(0.000)	(0.002)	(0.014)	(0.001)	(0.004)	(0.016)
AR(2)	(0.463)	(0.626)	(0.320)	(0.462)	(0.393)	(0.417)	(0.438)	(0.591)	(0.237)	(0.448)	(0.370)	(0.347)
Sargan OIR	(0.529)	(0.639)	(0.574)	(0.009)	(0.045)	(0.032)	(0.346)	(0.659)	(0.554)	(0.003)	(0.036)	(0.038)
Hansen OIR	(0.473)	(0.837)	(0.660)	(0.195)	(0.623)	(0.366)	(0.505)	(0.684)	(0.323)	(0.194)	(0.639)	(0.185)
DHT for instruments												

(a) Instruments in levels												
H excluding group	(0.698)	(0.367)	(0.697)	(0.251)	(0.549)	(0.373)	(0.673)	(0.473)	(0.679)	(0.226)	(0.464)	(0.620)
Dif(null, H=exogenous)	(0.315)	(0.921)	(0.511)	(0.241)	(0.569)	(0.376)	(0.355)	(0.669)	(0.192)	(0.258)	(0.646)	(0.098)
(b) IV (years, eq(diff))												
H excluding group	(0.819)	(0.496)	(0.931)	(0.072)	(0.828)	(0.199)	(0.585)	(0.372)	(0.317)	(0.106)	(0.605)	(0.177)
Dif(null, H=exogenous)	(0.231)	(0.986)	(0.337)	(0.859)	(0.137)	(0.788)	(0.375)	(0.915)	(0.346)	(0.651)	(0.512)	(0.351)
Fisher	40.12***	33.66***	83.52***	57.80***	34.80***	168.7***	32.37***	35.28***	41.07***	33.46***	32.10***	47.18***
Instruments	21	19	21	37	35	37	21	19	21	37	35	37
Countries	78	68	75	77	67	71	78	68	75	77	67	71
Observations	515	305	210	482	287	195	515	305	210	482	287	195

	Panel B: Unclear and Total Terrorisms											
	Unclear Terrorism (Unclter)						Total Terrorism (Totter)					
	CC	CC ≤M	CC>M	CC	CC ≤M	CC>M	CC	CC ≤M	CC>M	CC	CC ≤M	CC>M
Constant	1.027 (0.227)	-1.366 (0.113)	3.734*** (0.000)	-5.236** (0.038)	-1.140 (0.601)	-2.512 (0.253)	0.874 (0.351)	-1.773* (0.074)	3.971*** (0.000)	-5.868** (0.021)	0.926 (0.641)	-2.403 (0.332)
FDI(-1)	0.761*** (0.000)	0.702*** (0.000)	0.739*** (0.000)	0.714*** (0.000)	0.661*** (0.000)	0.586*** (0.000)	0.821*** (0.000)	0.671*** (0.000)	0.776*** (0.000)	0.728*** (0.000)	0.651*** (0.000)	0.586*** (0.000)
Unclter	0.018 (0.206)	0.052*** (0.000)	-0.031 (0.102)	0.032** (0.028)	0.013 (0.237)	-0.071*** (0.000)	---	---	---	---	---	---
Totter	---	---	---	---	---	---	0.004*** (0.008)	0.023*** (0.000)	-0.002 (0.164)	0.004** (0.035)	0.012* (0.063)	-0.007*** (0.000)
LnMulaid	0.224 (0.157)	0.516*** (0.008)	-0.074 (0.567)	0.272** (0.025)	0.501*** (0.004)	-0.260 (0.133)	0.178 (0.274)	0.644*** (0.004)	-0.151 (0.191)	0.234* (0.066)	0.510** (0.011)	-0.197 (0.222)
Unclter × LnMulaid	-0.004 (0.104)	-0.009*** (0.000)	0.005 (0.123)	-0.005** (0.030)	-0.004*** (0.005)	0.015*** (0.000)	---	---	---	---	---	---
Totter × LnMulaid	---	---	---	---	---	---	-0.001** (0.024)	-0.004*** (0.008)	0.001 (0.378)	-0.001 (0.111)	-0.004 (0.111)	0.001*** (0.001)
GDP growth	---	---	---	0.047 (0.260)	-0.090** (0.046)	0.048 (0.145)	---	---	---	0.040 (0.290)	-0.074 (0.082)	0.067** (0.045)
LnTrade	---	---	---	1.234** (0.012)	0.163 (0.736)	1.809*** (0.001)	---	---	---	1.214* (0.062)	-0.712* (0.063)	1.686*** (0.000)
LnInflation	---	---	---	0.252** (0.025)	0.224* (0.080)	0.010 (0.921)	---	---	---	0.235* (0.060)	0.234* (0.068)	0.038 (0.728)
LnInfrastructure	---	---	---	-0.069 (0.681)	0.109 (0.491)	-0.508* (0.078)	---	---	---	-0.136 (0.446)	0.186 (0.282)	-0.417 (0.103)
AR(1)	(0.001) (0.439)	(0.004) (0.599)	(0.004) (0.246)	(0.002) (0.453)	(0.002) (0.311)	(0.009) (0.355)	(0.001) (0.460)	(0.002) (0.618)	(0.006) (0.322)	(0.002) (0.458)	(0.003) (0.003)	(0.009) (0.417)
Sargan OIR	(0.627)	(0.397)	(0.606)	(0.011)	(0.015)	(0.028)	(0.508)	(0.620)	(0.570)	(0.007)	(0.033)	(0.033)
Hansen OIR	(0.654)	(0.638)	(0.657)	(0.255)	(0.437)	(0.241)	(0.429)	(0.801)	(0.652)	(0.205)	(0.622)	(0.393)
DHT for instruments												
(a) Instruments in levels												
H excluding group	(0.705)	(0.340)	(0.929)	(0.276)	(0.569)	(0.480)	(0.669)	(0.371)	(0.781)	(0.235)	(0.571)	(0.392)
Dif(null, H=exogenous)	(0.501)	(0.715)	(0.402)	(0.306)	(0.341)	(0.183)	(0.284)	(0.882)	(0.463)	(0.267)	(0.553)	(0.396)
(b) IV (years, eq(diff))												
H excluding group	(0.561)	(0.495)	(0.682)	(0.245)	(0.733)	(0.205)	(0.884)	(0.484)	(0.864)	(0.074)	(0.770)	(0.225)
Dif(null, H=exogenous)	(0.575)	(0.641)	(0.491)	(0.376)	(0.077)	(0.434)	(0.175)	(0.954)	(0.371)	(0.878)	(0.197)	(0.777)
Fisher	78.52***	58.45***	86.59***	73.03***	60.62***	124.4***	39.84***	35.96***	54.35***	54.61***	38.41***	98.47***
Instruments	21	19	21	37	35	37	21	19	21	37	35	37
Countries	78	68	75	77	67	75	78	68	75	77	67	71
Observations	515	305	210	482	287	195	515	305	210	482	287	195

*, **, ***: significance levels of 10%, 5% and 1% respectively. Mulaid: Multilateral aid. CC: Corruption-Control. M: Median of Corruption-Control (-0.1009844). DHT: Difference in Hansen Test for Exogeneity of Instruments' Subsets. Dif: Difference. OIR: Over-identifying Restrictions Test. The significance of bold values is twofold. 1) The significance of estimated coefficients, Hausman test and the Fisher statistics. 2) The failure to reject the null hypotheses of: a) no autocorrelation in the AR(1) and AR(2) tests and; b) the validity of the instruments in the Sargan OIR test.

From the Table 6 on total aid, the positive effect of terrorism is higher in the sub-sample with low CC levels, which is consistent with evidence from the preceding tables. While this is the case only in specifications without control variables for unclear terrorism, (and specifications with control variables for domestic and total terrorisms), it is not the case in either specification for transnational terrorism. With the exception of domestic terrorism, for which total aid does not mitigate its adverse effect on FDI, threshold points at which total aid reduces the negative impacts of terrorism are broadly within range. For transnational

terrorism, it is 6.60 (0.152/0.023), which is within the range of between 0.800 and 8.495. Unclear terrorism is 6 (0.072/0.012), which is also within range. Also,8 (0.008/0.001) are within range for total terrorism.

With regard to evidence of convergence, the following are observed from the Table 5. The maximum rate of convergence is 28.33% (0.850/3) pa, while the minimum rate is 18.46% pa (0.554/3). This is with the exceptions of the first specifications without control variables for all dynamics of terrorism. The convergence rate is slightly slower in countries with higher CC levels. Finally, the discussion relevant to the signs of the significant control variables is consistent with those pertaining to Table 3 and Table 4 on bilateral and multilateral aid respectively.

Table 5: FDI, Total Aid, Terrorism and Corruption-Control

Dependent Variable: Foreign Direct Investment Inflows												
Panel A: Domestic and Transnational Terrorisms												
	Domestic Terrorism (Domter)						Transnational Terrorism (Tranater)					
	CC	CC ≤M	CC >M	CC	CC ≤M	CC >M	CC	CC ≤M	CC >M	CC	CC ≤M	CC >M
Constant	-0.085 (0.948)	-0.270 (0.848)	2.172 (0.171)	-3.329 (0.295)	3.923 (0.187)	-6.540*** (0.000)	1.138 (0.363)	-0.076 (0.948)	3.431** (0.032)	-4.903 (0.140)	4.622 (0.110)	-6.530*** (0.006)
FDI(-1)	0.850*** (0.000)	0.599*** (0.000)	0.785*** (0.000)	0.690*** (0.000)	0.610*** (0.000)	0.554*** (0.000)	0.673*** (0.000)	0.629*** (0.000)	0.696*** (0.000)	0.676*** (0.000)	0.603*** (0.000)	0.579*** (0.000)
Domter	(0.005)	(0.018)	(0.589)	(0.001)	(0.005)	(0.059)	---	---	---	---	---	---
Tranater	---	---	---	---	---	---	0.038 (0.419)	0.118 (0.519)	-0.119** (0.019)	0.051 (0.260)	0.042 (0.792)	-0.152*** (0.001)
LnTotaaid	0.314 (0.112)	0.180 (0.462)	-0.156 (0.507)	0.407*** (0.009)	0.256 (0.214)	0.201 (0.230)	0.167 (0.402)	0.121 (0.570)	-0.392* (0.087)	0.335** (0.039)	0.025 (0.911)	0.096 (0.589)
Domter × LnTotaaid	-0.004*** (0.004)	-0.029** (0.023)	0.001 (0.705)	-0.004*** (0.001)	-0.035*** (0.007)	0.001 (0.120)	---	---	---	---	---	---
Tranater × LnTotaaid	---	---	---	---	---	---	-0.008 (0.379)	-0.018 (0.595)	0.019** (0.036)	-0.010 (0.257)	-0.007 (0.810)	0.023*** (0.002)
GDP growth	---	---	---	0.048 (0.210)	-0.012 (0.747)	0.015 (0.685)	---	---	---	0.040 (0.235)	-0.014 (0.713)	0.036 (0.197)
LnTrade	---	---	---	0.177 (0.378)	0.096 (0.218)	-0.059 (0.000)	---	---	---	0.153 (0.104)	-0.025 (0.070)	0.036 (0.000)
LnInflation	---	---	---	0.177 (0.149)	0.096 (0.485)	-0.059 (0.571)	---	---	---	0.153 (0.225)	-0.025 (0.104)	0.036 (0.808)
LnInfrastructure	---	---	---	-0.011 (0.940)	0.150 (0.305)	0.038 (0.800)	---	---	---	-0.155 (0.370)	0.154 (0.268)	-0.054 (0.777)
AR(1)	(0.001)	(0.005)	(0.013)	(0.002)	(0.005)	(0.008)	(0.002)	(0.004)	(0.009)	(0.002)	(0.005)	(0.007)
AR(2)	(0.429)	(0.426)	(0.332)	(0.542)	(0.234)	(0.399)	(0.414)	(0.693)	(0.334)	(0.559)	(0.522)	(0.425)
Sargan OIR	(0.071)	(0.429)	(0.221)	(0.004)	(0.072)	(0.041)	(0.025)	(0.178)	(0.155)	(0.001)	(0.001)	(0.031)
Hansen OIR	(0.253)	(0.467)	(0.670)	(0.343)	(0.675)	(0.410)	(0.143)	(0.267)	(0.442)	(0.246)	(0.377)	(0.443)
DHT for instruments												
(a) Instruments in levels												
H excluding group	(0.792)	(0.707)	(0.497)	(0.638)	(0.919)	(0.255)	(0.740)	(0.479)	(0.903)	(0.473)	(0.681)	(0.569)
Dif(null, H=exogenous)	(0.199)	(0.306)	(0.636)	(0.218)	(0.388)	(0.534)	(0.062)	(0.201)	(0.225)	(0.190)	(0.232)	(0.348)
(b) IV (years, eq(diff))												
H excluding group	(0.285)	(0.208)	(0.880)	(0.336)	(0.796)	(0.430)	(0.056)	(0.160)	(0.496)	(0.117)	(0.453)	(0.288)
Dif(null, H=exogenous)	(0.278)	(0.865)	(0.381)	(0.391)	(0.233)	(0.367)	(0.483)	(0.556)	(0.360)	(0.778)	(0.249)	(0.725)
Fisher	96.26***	30.91***	132.0***	43.48***	38.31***	163.4***	55.28***	28.23***	44.91***	32.56***	27.13***	41.8***
Instruments	21	19	21	37	35	37	21	19	21	37	35	37
Countries	78	68	75	77	67	72	78	68	75	77	67	72
Observations	520	306	214	487	288	199	520	306	214	487	288	199

Panel B: Unclear and Total Terrorisms												
	Unclear Terrorism (Unclter)						Total Terrorism (Totter)					
	CC	CC ≤M	CC >M	CC	CC ≤M	CC >M	CC	CC ≤M	CC >M	CC	CC ≤M	CC >M
Constant	-0.184 (0.866)	0.958 (0.327)	1.409 (0.361)	-4.271** (0.046)	1.578 (0.484)	-6.77*** (0.003)	-0.235 (0.859)	0.955 (0.499)	2.152 (0.181)	-4.473 (0.122)	3.779 (0.158)	-6.65*** (0.003)
FDI(-1)	0.747***	0.746***	0.750***	0.694***	0.655***	0.597***	0.821**	0.617***	0.780***	0.687***	0.618***	0.560***
Unclter	0.045 (0.133)	0.063* (0.086)	-0.054 (0.225)	0.059 (0.131)	0.009 (0.738)	-0.072** (0.050)	---	---	---	---	---	---
Totter	---	---	---	---	---	---	0.019*** (0.005)	0.067** (0.028)	-0.004 (0.477)	0.017*** (0.000)	0.093*** (0.003)	-0.008** (0.024)
LnTotaaid	0.349** (0.028)	0.149 (0.387)	0.001 (0.995)	0.286* (0.056)	0.079 (0.655)	0.260 (0.152)	0.351* (0.083)	0.223 (0.329)	-0.164 (0.500)	0.393** (0.014)	0.260 (0.211)	0.190 (0.257)
Unclter × LnTotaaid	-0.008* (0.089)	-0.011 (0.034)	0.008 (0.261)	-0.009 (0.133)	-0.003 (0.346)	0.012** (0.042)	---	---	---	---	---	---
Totter × LnTotaaid	---	---	---	---	---	---	-0.003*** (0.006)	-0.011** (0.041)	0.001 (0.608)	-0.003*** (0.009)	-0.017*** (0.005)	0.001* (0.056)
GDP growth	---	---	---	0.068* (0.081)	-0.029 (0.479)	0.029 (0.469)	---	---	---	0.054 (0.159)	-0.023 (0.539)	0.017 (0.637)
LnTrade	---	---	---	0.252** (0.130)	0.156 (0.898)	-0.004 (0.000)	---	---	---	0.191 (0.403)	0.075 (0.162)	-0.052 (0.000)
LnInflation	---	---	---	0.025* (0.025)	-0.044 (0.200)	-0.031 (0.965)	---	---	---	-0.029 (0.123)	0.106 (0.545)	0.044 (0.617)
LnInfrastructure	---	---	---	0.068* (0.777)	-0.029 (0.802)	0.029 (0.363)	---	---	---	0.054 (0.855)	-0.023 (0.433)	0.017 (0.766)
AR(1)	(0.001)	(0.730)	(0.001)	(0.002)	(0.002)	(0.007)	(0.001)	(0.003)	(0.013)	(0.002)	(0.004)	(0.007)
AR(2)	(0.439)	(0.730)	(0.297)	(0.575)	(0.510)	(0.398)	(0.430)	(0.474)	(0.337)	(0.553)	(0.339)	(0.408)
Sargan OIR	(0.066)	(0.193)	(0.177)	(0.002)	(0.001)	(0.026)	(0.067)	(0.216)	(0.216)	(0.004)	(0.006)	(0.039)
Hansen OIR	(0.700)	(0.647)	(0.755)	(0.437)	(0.473)	(0.417)	(0.198)	(0.266)	(0.660)	(0.316)	(0.462)	(0.426)
DHT for instruments												
(a) Instruments in levels												
H excluding group	(0.929)	(0.457)	(0.677)	(0.466)	(0.636)	(0.222)	(0.849)	(0.592)	(0.823)	(0.644)	(0.791)	(0.276)
Dif(null, H=exogenous)	(0.448)	(0.634)	(0.640)	(0.400)	(0.344)	(0.580)	(0.080)	(0.168)	(0.453)	(0.192)	(0.259)	(0.534)
(b) IV (years, eq(diff))												
H excluding group	(0.592)	(0.675)	(0.475)	(0.514)	(0.933)	(0.300)	(0.168)	(0.172)	(0.957)	(0.313)	(0.544)	(0.447)
Dif(null, H=exogenous)	(0.613)	(0.434)	(0.787)	(0.298)	(0.019)	(0.634)	(0.317)	(0.515)	(0.319)	(0.377)	(0.261)	(0.370)
Fisher	100.4***	53.82***	101.8***	44.04***	67.67***	42.86***	81.02***	28.84***	138.8***	39.78***	43.57***	123.0***
Instruments	21	19	21	37	35	37	21	19	21	37	35	37
Countries	78	68	75	77	67	72	78	68	75	77	67	72
Observations	520	306	214	487	288	199	520	306	214	487	288	199

*, **, ***: significance levels of 10%, 5% and 1% respectively. Totaaid: Total aid. CC: Corruption-Control. M: Median of Corruption-Control (-0.1009844). DHT: Difference in Hansen Test for Exogeneity of Instruments' Subsets. Dif: Difference. OIR: Over-identifying Restrictions Test. The significance of bold values is twofold. 1) The significance of estimated coefficients, Hausman test and the Fisher statistics. 2) The failure to reject the null hypotheses of: a) no autocorrelation in the AR (1) and AR(2) tests and; b) the validity of the instruments in the Sargan OIR test.

We have observed that the threshold point at which the modifying foreign aid variables are within their respective ranges, with the slight exception of the effect of multilateral aid, decreases the adverse effect of domestic terrorism. A resulting policy implication is that more multilateral aid may be needed to combat the negative effect of domestic terrorism on FDI in countries with CC levels that are above the median. The employment of this range is important in order to provide economic significance to interactive estimated coefficients since overall interpretations are based on marginal effects. Moreover, given that most of the thresholds are just close to the upper limit or maximum of the range, it implies that more development assistance is needed to reap more benefits from the mitigating role of foreign aid. It should be noted that the closeness of the threshold to the upper limit imply that only a few sampled countries enjoy the dampening role of foreign aid in the effect of terrorism dynamics on FDI. Hence, more foreign aid is required to make these benefits more accessible.

The rate of convergence is between 18.46% and 27.06%, 16.76% and 27.36%, and 18.46% and 28.33% per annum in specifications with bilateral aid, multilateral aid and total aid respectively. This implies that corresponding time to full convergence is respectively between 16.25 years (yrs) ($300\%/18.46\%$) and 11.08 yrs ($300\%/27.06\%$), 17.89 yrs ($300\%/16.76\%$) and 10.96 yrs ($300\%/27.36\%$), 16.25 yrs ($300\%/18.46\%$) and 10.58 ($300\%/28.33\%$). The interested reader can find more insights into the computations of full convergence in Asongu (2013c, 2014b).

We have also broadly established that, with the exception of the first specifications, which do not include the control variables, the rate of convergence is slightly lower in countries with higher corruption-control levels. This implies that the presence of more variables in the conditioning information set leads to a lower degree of catch-up among countries with higher levels of *CC*. In other words, changes in cross-country institutional and structural differences on which conditional convergence are based are less apparent in the presence of more control variables for high *CC* countries. This interpretation should be treated with caution because conditional convergence is contingent on the variables we chose and empirically test, which may not necessarily reflect all cross-country institutional and structural difference needed for conditional convergence to occur.

4. Conclusions and Further Directions

We set out to extend Bandyopadhyay, Sandler and Younas (2014) study by conditioning the mitigation effect of foreign aid, terrorism and FDI on corruption-control (*CC*) levels. Using the System GMM estimation technique on a panel of 78 developing countries for the period 1984-2008, we establish that the negative effect of terrorism on FDI is apparent only in countries with higher levels of *CC*. Foreign aid dampens the negative effect of terrorism on FDI only in higher levels of *CC*. The result is mixed when aid is subdivided into its bilateral and multilateral component. While our findings are in accordance with the stance that bilateral aid is effective in reducing the adverse impact of transnational terrorism, the position that only multilateral aid is effective in mitigating the adverse impact of domestic terrorism on FDI is not confirmed because multilateral aid also curbs the adverse effect of transnational terrorism on FDI. Moreover, multilateral aid also decreases the adverse effect of unclear and total terrorisms on FDI.

Specifically, we also observe from our estimation that the effect of terrorism on FDI has been established to be positive, with a higher magnitude in the sub-samples with lower *CC*. A logical implication is that some terrorism dynamics may not deter FDI location decisions especially in countries experiencing low levels of institutional governance (in terms of *CC*). This implies that the prevailing institutional structure may matter more for FDI despite the incidence of terrorism and this is likely tied to the confidence of FDI in the government's ability to protect their interest as well as defeat the prevailing encumbrance.

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