

Aid, Securitization, and Defense Agreements

“Securitization is not something that the West has done to Africa, but rather a set of policy imperatives that some African governments have actively pursued. African governments are thus not victims of securitization, but often its advocates and beneficiaries.” Fisher and Anderson 2015

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1. Introduction

What makes African nations reach out to make pacts with their neighbors and the international community, or to militarize? Fisher and Anderson (2015) claim that African governments readily embrace militarization after internal strife and civil wars and that after 9/11, security agreements with the United States re-enforce this already occurring ‘illiberal’ state building phenomena in Africa; encouraging military security regimes. The *cause de jour* of this predicament from the US side being fear of terrorist elements spreading across the African continent from Asia and the Middle East all the way to Europe and the United States.¹ A nascent study by Le Van (2010) implies that countries in Africa receiving higher aid packages from the U.S. might be more likely to react positively to the presence of the United States Africa Command (AFRICOM)—the US’s newest theater command—and to be more likely to cooperate in international agreements on security and trade.²

Rather than asking what are the security threats to the West coming through Africa generating international agreements on security—we ask what are the threats to the Africans? And what steps are the African countries taking to secure their citizens and their borders, as well as their

¹ Jakkie Cilliers. 2015. Violent Islamist Extremism and Terror in Africa. (Institute for Security Studies Paper 286 October). Miles, W. F. 2012. Deploying Development to Counter Terrorism: Post-9/11 Transformation of US Foreign Aid to Africa. *African Studies Review*, 55(03): 27-60.

² Palmer et al 2002 say that the US uses Aid as a ‘change maker’ tool modifying the behavior of recipient nations to one more agreeable to their foreign policy

regimes?³ We posit that the African nations first act in their own best interest following a rational choice approach, both in militarization and in security agreements, not necessarily in response to international aid. They will accept international agreements and aid to fight terrorism if it bolsters their own security from internal threats as well as external terrorist dangers, and insures the stability of their own regimes.⁴

Aid and outside assistance from the West are only parts of the African story. African nations, and in particular for this study; the Sudan, Chad and Ethiopia, make regional and international agreements, and augment their militaries for their own security and regime survival, having little to do with Western and further afield international security concerns. Looking through a local Africa security lens—African states forge defense agreements to ensure the safety of their own citizens and borders, put down rebellions, and to safeguard trade routes. While they are interested in the international fight against terrorism, for reasons of general international cooperation; more importantly, the transit of terrorists, of arms, and humans across their borders and through their nations poses a domestic security and stability threat.

Far from being victims of a Western agenda, Fisher and Anderson claim that African countries take advantage of the ‘African solutions for African problems’ by holding the donor countries hostage to their own militarization and power such as Uganda, Chad, South Sudan, and Ethiopia in particular. While the international community may be using the local militaries as proxies in the fight against extremism—instead, the local governments are co-opting the funds to strengthen their own military and their grip on power.

To investigate a general trend, we test aid’s affect on international agreements and on militarization of all of the African countries as well as the influence of insecurity on militarization. We then look at the case studies of the regional and bilateral security and economic agreements between Chad, Sudan, and Ethiopia to provide a micro level analysis of the questions particularly since they have varying degrees of aid, and intermittently have had less than stellar relationships with the West. Their regional history and purposes, and their efficacy against current and future threats are examined—and lastly, do these regional agreements help augment global security?

³ Hamdy A. Hassan. 2015. Contending hegemony and the new security systems in Africa. *African Journal of Political Science and International Relations*. 9(5):159-169.

⁴ See Oppenheimer 2008, Scott 2000, and Ostrom 1998 among many references covering the evolution of rational choice theory.

2. Rational actors and security threats

For decades, African nations have sustained traditional security threats and instability: wars, conflicts, and human insecurity. However, during the last few decades, they have encountered more modern security threats created by globalization. These transnational threats to Africa as well as the West span the scope of human trafficking, arms smuggling, money laundering, and drug smuggling—adding the modern threats of terrorism, intellectual property theft, and electronic crimes. New wars engendering refugees fleeing economic and physical difficulties exacerbate the security issues of human trafficking, arms smuggling; the tensions of poverty and lack of development.

As a continent of mostly developing nations, the countries face the challenges of building good governance in the midst of conflict, lack of transparency, and combatting new challenges with limited resources. Furthermore, internal governments are striving to remain in power at the same time as maintaining valid positions in the global sphere. With minimal means and continuing insecurity, the countries direct their resources to securing their own borders, maintaining regional security, and bolstering their respective regimes. While they may appear to be assisting in the global fight against terrorism and some actually lending credible support to the international community—they are protecting themselves against terrorism and funneling resources to short and long-term survival.

Due to the transnational nature of terrorism, curbing it has called for a more joint effort between regional organizations as well as between neighboring states. This concern among African countries has led to joint military operations, the exchange of information, and the implementation of agreements and policies to accommodate the new landscape. Even though terrorism represents a major threat for the economic superpowers, the transit of terrorists and the accompanying criminal elements of arms, drugs, and people trafficking concentrate domestic dangers in the transiting territories. Regional and international efforts can both insure greater global and regional security as well as entrench the cooperating individual governments and regimes. Djibouti comes to mind as a major recipient of the bountiful benefits from the international community in exchange for military bases. Having overturned term limits in their constitution, the Djiboutian leader has ensured his permanent place in

office along with his clan.⁵ Kisangani Pickering (2015) find that donors increase aid (specifically DAC – development aid) significantly to countries that render military assistance.

As Libya presents a regional threat, adjacent countries such as Chad and the Sudan play a role in confronting threats that spread across East and North Africa—and accordingly Sudan and Ethiopia as part of the transit route. Likewise, human and arms trafficking from the Red Sea across the northernmost part of Sudan transiting through Libya to the Mediterranean to Europe challenges the Sudan's security of its periphery. Ethiopia faces threats from Somalia, and Yemen via Djibouti. Both Ethiopia and the Sudan keep a defensive stance against Eritrea, though recent rapprochement and new treaties and the advent of a new prime minister in Ethiopia are beginning to change the relationship.⁶

At a 2016 conference on combatting terrorism held in Khartoum, Sudanese expert on Islamist groups, al-Hadi Mohammed al-Amin, alleged that the *Jihadist* group ISIL (Islamic State of Iraq and the Levant) is facing a tough time in Syrian and Iraq and will try to use Sudan as a crossing point into Libya.⁷ In the last few years, the Sudanese National Intelligence and Security Service (NISS) detained a Belgian and an Indian militant attempting the transit, and the Rapid Support Forces (RSF) have apprehended significant border infringements. The Sudanese have concerns about sleeper cells already in the Sudan.⁸ In addition to extremist groups such as Boko Haram making security agreements for the Chad-Sudan border imperative, tribal and rebel issues also take precedent. The close ties between Chadians and the Sudanese through the Massalit tribe and Chadian President Idriss Deby's Zaghawa tribe (sizable populations in both countries); call for agreements and monitoring to ensure dissident-irredentist groups do not receive cross border support and threaten each other's capitals. No friend of Libya's all the way back from Gadhafi's support to the Sudanese National Front and the Darfur rebels, and because of his aggression against Chad as well as

⁵ 'Djibouti parliament removes presidential term limits.' *Reuters*. April 14, 2010. <<https://af.reuters.com/article/topNews/idAFJ0E63D0P320100414>>

⁶ Alexia Underwood, 2018. The sudden end of the Ethiopia-Eritrea War, explained. *Vox*, July 13. <<https://www.vox.com/2018/7/31/17595988/ethiopia-eritrea-peace-abi-ahmed>>

⁷ Expert warns against ISIS's use of Sudanese border to join Libya. *Sudan Tribune* 12 February 2016 <<http://www.sudantribune.com/spip.php?article57991>> (Accessed February 2016)

⁸ Morgan Winsor. 2016. Sudan Will Not Become ISIS Territory Despite Islamic State Group Threat in Libya, Spy Chief Says. *International Business Times* January 20. <<http://www.ibtimes.com/sudan-will-not-become-isis-territory-despite-islamic-state-group-threat-libya-spy-2272322>> (accessed January 4 2017)

current tribal based aggression; the Sudan and Chad now have regular army troops jointly patrolling their borders with Libya.

Likewise, from the Ethiopian side, while having one of the strongest armies in Africa, it faces threats from extremists on its long Eritrean and Somali borders, making a safe left flank with the Sudan vital.⁹ Ethiopia and Sudan's long border hosted conflicts from the days of the emperors and the Mahdi on through the communist Derg regime. Both countries have hosted rebel groups threatening their respective governments causing rifts in neighborly relations, however with more urgent regional and global matters at hand, trade, water and security agreements are improving relationships and alliances. The Sudanese and the Ethiopians set to launch a single border crossing between their countries to ease trade flows and combat cross border crime in 2016 - as an outcome of a COMESA (Common Market for Eastern and Southern Africa) meeting. The Ethiopians have elected a Muslim from the Oromo tribe for the first time in their history; he has reached out to Eritrea to normalize relations.¹⁰

Bapat (2011) uses a game theoretical model to show that countries receiving aid from the United States to help eradicate terrorist groups will continue taking the money without making moves to eradicate the groups in order to to keep the gravy train coming. However, he shows that the upside of this arrangement ensures that the radicals never take over power. This serves the purpose of both sides each serving their own utilities. The core of our argument is that actors are rational and behave in their own best interest (Friedman 1953, Becker 1976, Green and Shapiro 1994, Scott 2000, etc.).¹¹ This is true for African nations as well as Western ones, while the West may act ostensibly with philanthropic intent and means towards the African continent, the West is interested in its own security at its core, and as Palmer et al 2002 indicate, the US uses Aid as a foreign policy tool to change behavior of the recipient nations. All nations are working toward stability, security, and prosperity whether for a small ruling group, or the entire nation. Many African nations fit in the former category.

⁹ Maru, Mehari Taddele. 2014. Ethiopia's Regional Diplomacies: A Dominant Interpretation of the Horn of Africa. Horn Affairs Online October 29
< <http://hornaffairs.com/en/2014/10/29/ethiopia-diplomacies-dominant-interpretation-horn-of-africa/>> and
<<http://www.globalfirepower.com/countries-listing-africa.asp>>

¹⁰ Eritrea and Ethiopia have recently made some steps toward rapprochement. Alexia Underwood, 2018. The sudden end of the Ethiopia-Eritrea War, explained. *Vox*, July 13.
<<https://www.vox.com/2018/7/31/17595988/ethiopia-eritrea-peace-abyi-ahmed>>

¹¹ Multiple references are available on the subject of cost benefit analysis and rational choices applying economic theory to political behavior.

All of these factors have resulted in new bilateral, regional, and international security arrangements to enhance the ability of the Africans to deal with domestic and international threats.¹² The international community gives large amounts of aid to many of the African countries, but does this aid contribute to militarization or to security? And does it contribute to alliance formation or entrenchment. Kono and Montinola (2013) review most of the literature on the pros and cons of development aid and military spending, as well as a larger review on aid, democracies, autocracies, growth, and rent seeking. Feyzioglu, Swaroop, and Zhu 1998, and Cashel-Cordo and Craig 1990 find no evidence that countries divert aid to their military.¹³ Kono and Montinola (2013) cite alternative articles from Collier and Hoeffler (2007), and Khilji and Zampelli (1994) who find the opposite in aid being associated with an increase in militarization. Kono and Montinola (2013) conclude that autocratic regimes divert aid funds to militarization.

We look at large 'N' trends for all of Africa, as well as three countries from East Africa to see what current tendencies are for aid's impact on militarization vs. defense pacts. And defense pacts on militarization.

3. Some quantitative measures on aid and security

Countries may act in their own best interests, but interests differ; peace, global security, and democratization are not always the results. Algeria received the lowest aid as percent of GNI over the ten-year period between 2005-2014 of any of the African nations, yet they spent among the highest percentages of their government budget on their military, as did South Africa, and Angola.¹⁴ Examining the aid per GDP received from countries such as the Sudan, Chad, and Ethiopia—Chad and the Sudan fall in the lower quadrant of aid recipients, yet are among the highest spenders on the military. Though Darfur and South Sudan probably received the lion share of the aid, over a ten year average the Sudan only received 3.28% GDP in foreign aid and spent 4.34% GDP on its military.¹⁵ Chad likewise received 3.38% of its

¹² Mohamed Higazi. 2016. The development of African Security Challenges & the confrontation strategies. *International Politics Magazine* July: 9-22.

¹³ Kono and Montinola, 2013: p. 615.

¹⁴ World Bank Development Indicators 2016. < <http://databank.worldbank.org/data/home.aspx>>

¹⁵ World Bank Development Indicators 2016. < <http://databank.worldbank.org/data/home.aspx>>

GDP in foreign aid and spent 4.61 % of its GDP on the military. Ethiopia receives a higher aid average over ten years of 6.83 % of GDP and spent a slight 1.42 % of GDP on its military. Fisher and Anderson mention Uganda, and South Sudan as well as Ethiopia and Chad as militarizing, implying that aid exacerbates militarization. Uganda is one of the largest troop contributing countries to AMISOM (African Union Mission in Somalia), receives 6.84 % GDP in aid and spends 2.10 % GDP on its military, while South Sudan has received 9.04% of GDP from foreign aid on average since its independence in 2011 and spent an average of 6.75% of GDP on the military. Likely this figure is much higher. Thomas (2009) reported Sudan as spending more 40% of its budget on the military and defense in 2006 and South Sudan spent 30% of total government expenditure on their security and defense in 2008.¹⁶ Though this is not reported in the World Bank Data, in essence, both South Sudan and the Sudan have consistently militarized – though some of the money itself likely came from oil and other sources rather than aid.¹⁷

From the 2015 Polity Data, Sudan and South Sudan rate a 4 out of 10 for autocracy from the Polity Data, Chad rates a 3 out of 10, and Ethiopia a 4. South Sudan rates a zero on the democracy scale, while Sudan rates a 1, Chad a 1 and Ethiopia a 1.¹⁸ Military/Autocracies perhaps do spend more on the military to bolster their regimes that may or may not have popular support.¹⁹ But they could also be spending due to general war and insecurity, a logical conclusion for military spending.

To test the effects of disaggregated aid on militarization and on defense pacts, we utilize a formal model with three different measurements for the dependent variable of militarization, and one measurement for the defense pacts.

4. Random Effects Modeling

4.1. Model Specification

¹⁶ Some diplomats posit that the Sudan spends as much as 70% of its budget on the military.

¹⁷ Since there are a lot of missing data on actual spending as part of the budget, we do not attempt to test it in the graphs and models in this paper.

¹⁸ Polity IV Project < <http://www.systemicpeace.org/polity/polity4.htm>>

¹⁹ Mansfield, E.D., Milner, H.V. and Rosendorff, B.P., 2000. Free to trade: Democracies, autocracies, and international trade. *American Political Science Review*, 94(02), pp.305-321.

To analyze the effects of foreign aid on militarization and on defense agreements in Africa we employ a Random Effects model using panel data for the years 1967 to 2015 on 53 countries in Africa. The model is specified as follows:

$$\begin{aligned} \text{MILT}_{it} = & \beta_0 + \beta_1 \text{GDP}_{it} + \beta_2 \text{POP}_{it} + \beta_3 \text{AUT}_{it} + \beta_4 \text{Battle}_{it} + \beta_5 \text{Trade}_{it} + \beta_6 \text{Manuf}_{it} \\ & + \beta_7 \text{Agre}_{it} + \beta_8 \text{Corr}_{it} + \beta_9 \text{Infra}_{it} + \beta_{10} \text{Educ}_{it} + \beta_{11} \text{AID}_{it} + \mu_{it} \end{aligned} \quad (1)$$

Where the subscripts *i* and *t* represent the country and time period, respectively. The variable MILT_{it} is the dependent variable capturing militarization. For the purpose of robustness checks the dependent variable (i.e. militarization/securitization) is proxied by four variables: armed force as ratio of total labor force, arms imports, military expenditure as ratio of GDP, and defense agreements. The above model relates the dependent variable to a set of explanatory variables, which include: per capita GDP, total population, autocracy, number of battle deaths, trade openness, manufacturing share in GDP, defense agreements, corruption, infrastructure, education quality, and foreign aid. Foreign aid is our core variable and for a purpose of comparison and robustness check we use four measures for foreign aid: total aid, development aid, US aid, and military aid. Finally, the error term μ_{it} in equation 1 is a composite disturbance term that includes an unobserved country-specific effect η_i , a time-specific effect λ_t , and an error term ε_{it} . The composite error is specified as follows:

$$\mu_{it} = \eta_i + \lambda_t + \varepsilon_{it} \quad (2)$$

According to theoretical and empirical literature, the impact of per capita GDP is=[expected to be positive, as an increase in country's income and population size will enhance military expenditure and securitization level (Dunne et al., 2003). The coefficient of population is ambiguous, since population size may cause negative or positive increases in militarization. Large population size may encourage military expenditure since a bigger population could be costly to defend; thus, larger countries may give more attention to their militaries because it gives them regional and global standing as great powers (Albalate, 2012). On the other hand, population may negatively influence militarization because a large population offers intrinsic security by itself (Dunne et al, 2008). The effect of autocracy would be positive, since autocratic government tends to spend more on the military to cling to power (Solarin, 2017). The coefficient of battle deaths is expected to be positive, as a country that witnesses more battle deaths due to civil or terrorist conflict tends to spend more on their militaries. The impact of trade openness is expected to be positive, since trade liberalization enhances the

military interest of governments (Solarin, 2017). The effect of defense agreements also is expected to be positive, because engaging in defense agreements raises the level of securitization attention among partners, and hence their militarization rates. The coefficient of corruption would be positive, as some corrupted regimes tend to use military forces to support their survival in power (Gupta et al., 2001). The coefficients of infrastructure and manufacturing share in GDP are expected to be positive. Finally, the expected signs of foreign aid variables are inconclusive, as there is no consensus in the literature on the impact of aid on securitization. The definition and sources of the variables are presented in Appendix I.

The summary statistics of the variables used in the study are presented in Appendix II. It is clear that the per capita GDP, trade openness and infrastructure vary greatly across countries. The result of descriptive statistics also shows that the standard deviation of GDP growth is relatively high, implying high income inequality across African countries. Interestingly, the standard deviation of number of battle deaths is also high, indicating a high disparity in conflict and security situations among African countries. The aid variables reported have relatively moderate standard deviations, implying a relative similarity in aid received.²⁰

4.2. Estimation Methodology

The securitization model of equation 1 is estimated via two panel data methods namely, fixed effects (FE) and random effects (RE) models. Adopting a panel data model with inclusion of individual effects has a number of advantages. First, panel data allows us to account for individual heterogeneity, which is ignored by pooled ordinary least square POLS estimators (Hsiao, 1986). Indeed, African countries differ in terms of country specific variables such as their colonial history, their political regimes, their religious affiliations, their geographical locations and climatic conditions. Therefore, using POLS estimators assumes that the relationship between dependent variables and regressors will be the same for all the countries and that heterogeneity does not bias the results (Sayrs, 1989). Second, since panel data combines both cross-sections and time series it can enhance the quality of data and sort out economic effects that cannot be distinct with only cross-sections or time series data. Also, with panel data, there are more numbers of data points that generate additional degrees of freedom, which improve the efficiency of the econometric estimates. Moreover, using

²⁰ Outliers who receive an inordinate amount of aid are Burundi, Cape Verde, Djibouti, Liberia

information of both temporal (time) and country (cross-section) effects can substantially take out the problems of omitted or missing variables (Hsiao, 1986 & 1995).

Since our regression model involves individual effects, it is important to decide whether they are fixed or random; thus we initially test the fixed and random effects models. To do so we test the correlation between countries' unobservable individual effects and securitization determinants (i.e. regressors). If there are no correlations between countries' unobservable individual effects and the regressors, a panel model of random effects would be the most appropriate method of analysis. On the contrary, if there is correlation between countries' individual effects and regressors, fixed effects will be more appropriate. To test for the possible existence of correlation we use the Hausman test. This test tests the null hypothesis of non-existence of correlation between unobservable individual effects and the regressors, against the alternative hypothesis of existence of correlation.²¹

4.3. Model results

The estimation results of equation 1 for our four dependent variable models are presented through Tables 1 to 4. The models were estimated using both fixed effects and random effects. However, the Hausman test in all models indicate the appropriateness of a random effects model, thus our results and interpretation will follow the random effects model.

First, table 1 below presents the results of equation 1 for armed forces. The results of the four types of aid are reported in column 2 through column 5.

Table 1: Results of Random Effect Estimation: Armed forces

Dependent Variable: Armed forces				
Variable	Model 1	Model 2	Model 3	Model 4
Population	-0.388 (0.279)	-0.231 (0.304)	-0.522* (0.276)	-0.736* (0.303)
AUT	0.023 (0.015)	0.018 (0.015)	0.023 (0.015)	0.013 (0.014)
GDP per capita	0.170 (0.125)	0.001 (0.000)	0.191 (0.119)	0.146 (0.104)

²¹ If the null hypothesis of no correlation between the individual effects and regressors is rejected, then it will be proven that the fixed effects model is better than the random effects model. On the other hand, if the null hypothesis is accepted we can conclude that there is no correlation and therefore a panel model of random effects being the most appropriate way to carrying out analysis of the relationship between securitization its determinants.

Battle deaths	0.114*** (0.030)	0.123*** (0.030)	0.122*** (0.030)	0.132*** (0.017)
Trade openness	-0.010*** (0.001)	-0.010*** (0.001)	-0.012*** (0.001)	-0.001 (0.001)
Manufacturing	0.005 (0.008)	0.006 (0.008)	0.007 (0.008)	0.005 (0.006)
Defense Agreements	0.160*** (0.040)	0.150*** (0.041)	0.162*** (0.039)	0.037 (0.029)
Corruption	0.249** (0.011)	0.268** (0.111)	0.177* (0.110)	-0.450*** (0.107)
Infrastructure	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001** (0.000)
Education quality	0.069 (0.075)	0.063 (0.75)	0.050 (0.073)	-0.148*** (0.53)
Total aid	0.009* (0.005)			
Development Aid		0.009*** (0.003)		
USAID			0.105*** (0.017)	
Military Aid				-0.030 (0.025)
Constant	2.937 (2.172)	2.956 (2.127)	3.793* (2.102)	4.948** (2.150)
R ²	14	15	18	33
Wald chi2	118.32 (0.000)	124.56 (0.000)	155.01 (0.000)	195.20 (000)
Hausman Test	19.68 (0.049)		15.16 (0.175)	79.89 (0.000)
No of Observations	759	752	744	449

Notes: Figures in Parentheses are standard errors

***, ** and * denotes significance at the 1, 5 and 10 percent level

The results of table 1 show that the effect of total aid, development aid and US aid is positive and significant, whereas the impact of military aid is found negative but it is not significant.

Second, results of equation 1 for arms import is presented in table 2 below

Table 2: Results of Random Effect Estimation: Arms Imports

Dependent Variable: Arms Imports				
Variable	Model 1	Model 2	Model 3	Model 4
Population	-0.616 (0.408)	-0.517 (0.393)	-0.979** (0.478)	0.001 (0.194)
AUT	0.111** (0.042)	0.118** (0.041)	0.102 (0.046)	0.137* (0.068)
GDP per capita	0.087 (0.228)	0.130 (0.224)	-0.209 (0.245)	-0.146 (0.103)
Battle deaths	-0.214** (0.099)	-0.216** (0.099)	-0.239** (0.105)	-0.090* (0.127)
Trade openness	-0.002	-0.001	0.001	0.001

	(0.004)	(0.004)	(0.005)	(0.005)
Manufacturing	0.029 (0.023)	0.024 (0.023)	0.050* (0.026)	-0.009 (0.017)
Defense Agreements	0.114 (0.102)	0.090 (0.101)	0.095 (0.114)	-0.040 (0.074)
Corruption	-0.328 (0.261)	-0.287 (0.255)	-0.386 (0.293)	-0.267 (0.165)
Infrastructure	0.001 (0.004)	0.001 (0.004)	0.002 (0.004)	0.001 (0.001)
Education quality	-0.329* (0.151)	-0.322** (0.149)	-0.421** (0.202)	-0.250* (0.109)
Total aid	0.094*** (0.024)			
Development Aid		0.060*** (0.016)		
USAID			0.170*** (0.076)	
Military Aid				0.054 (0.100)
Constant	2.974 (3.543)	2.072 (3.470)	7.666* (3.919)	1.044 (1.849)
R ²	0.045	0.045	0.067	0.05
Wald chi2	57.04 (000)	56.76 (0.000)	46.4 (0.000)	22.68 (0.019)
Hausman Test	112.49 (0.000)	37.46 (0.000)	34.89 (0.000)	28.25 (0.001)
No of Observations	633	632	608	256

Notes: Figures in Parentheses are standard errors

***, ** and * denotes significance at the 1, 5 and 10 percent level

Third, results of equation 1 for military expenditure is presented in table 3 below:

Table 3: Results of Random Effect Estimation: Military Expenditure as ratio of GDP

Dependent Variable: Military Expenditure as ratio of GDP				
Variable	Model 1	Model 2	Model 3	Model 4
Population	-1.084 (0.729)	-1.080 (0.730)	-1.200** (0.707)	-0.331 (0.724)
AUT	0.053 (0.037)	0.062 (0.038)	0.053* (0.038)	0.029 (0.077)
GDP per capita	0.768** (0.317)	0.796** (0.326)	0.800*** (0.307)	0.124 (0.436)
Battle deaths	0.411*** (0.077)	0.399*** (0.078)	0.390*** (0.079)	0.434*** (0.096)
Trade openness	-0.010*** (0.004)	-0.010*** (0.004)	-0.012*** (0.004)	0.006 (0.008)
Manufacturing	-0.035 (0.022)	-0.041** (0.022)	-0.032 (0.022)	-0.045* (0.039)
Defense agreements	-0.021 (0.104)	-0.059 (0.110)	-0.011 (0.105)	0.314 (0.360)
Corruption	-0.389	-0.335	-0.460*	-3.827***

	(0.261)	(0.266)	(0.266)	(0.581)
Infrastructure	-0.003 (0.003)	-0.003 (0.003)	-0.003 (0.003)	-0.001 (0.003)
Education quality	-0.091 (0.181)	-0.083 (0.182)	-0.105 (0.183)	-0.508* (0.373)
Total Aid	0.008 (0.013)			
Development Aid		0.003 (0.008)		
USAID			0.123 (0.051)	
Military Aid				-0.015 (0.162)
Constant	5.399 (5.672)	5.351 (5.684)	5.974 (5.462)	1.279 (6.870)
R ²	0.08	0.08	0.08	0.17
Wald chi2	66.98(0.000)	66.22(0.000)	68.31 (0.000)	8.15 (0.699)
Hausman Test	23.49 (0.015)	48.46 (0.000)	5.08	-15.45
No of Observations	750	740	734	428

Notes: Figures in Parentheses are standard errors

***, ** and * denotes significance at the 1, 5 and 10 percent level

Finally, results of equation 1 for defense agreements is presented in table 4 below:

Table 4: Results of Random Effect Estimation: Defense Agreements

Dependent Variable: Defense Agreements				
Variable	Model 1	Model 2	Model 3	Model 4
Population	2.298*** (0.208)	2.060*** (0.203)	2.142*** (0.203)	1.178*** (0.434)
AUT	0.033*** (0.010)	0.032*** (0.010)	0.027*** (0.011)	-0.005 (0.046)
GDP per capita	0.181** (0.086)	0.221*** (0.086)	0.241*** (0.081)	0.516*** (0.235)
Battle	-0.023 (0.027)	-0.033 (0.026)	-0.013 (0.028)	-0.113*** (0.058)
Trade openness	0.002** (0.001)	0.002** (0.001)	0.002** (0.001)	-0.003** (0.001)
Manufacturing	0.000 (0.006)	-0.022** (0.006)	0.001 (0.006)	0.009 (0.015)
Corruption	0.636*** (0.068)	0.669*** (0.065)	0.628*** (0.071)	0.546** (0.277)
Infrastructure	0.000 (0.001)	0.000 (0.001)	0.000 (0.001)	-0.001 (0.001)
Education quality	0.023 (0.047)	0.061 (0.046)	-0.015 (0.056)	-0.082 (0.113)
Total aid	0.001 (0.004)			

Development Aid		0.004 (0.003)		
USAID			0.036* (0.015)	
Military Aid				0.060* (0.034)
Constant	-14.810*** (1.546)	-13.164*** (1.513)	-14.127*** (1.499)	-8.912*** (4.043)
R ²	0.30	0.30	0.29	0.18
Wald chi2	445.21 (0.000)	444.75(0.000)	420.91 (0.000)	20.38 (0.025)
Hausman Test	45.93 (0.000)	29.25 (0.001)	66.41 (0.000)	61.89 (0.000)
No of Observations	1157	1134	1115	481

Notes: Figures in Parentheses are standard errors

***, ** and * denotes significance at the 1, 5 and 10 percent level

Initial quantitative modeling employing random effects regressions of 53 African nations (from 1967 to 2015) show that aid has a small but significant correlation with arms imports and size of armed forces, but no apparent significant affect on military spending per GDP.²² Insecurity as measured by battle deaths clearly impacts military spending, size of the armed forces and arms imports. Defense agreements as an independent variable don't appear to have much effect on militarization, and US Aid is the only aid type that has a slight significant and positive impact on defense agreements as a dependent variable. Long (2003) shows that bilateral defense agreements that specifically commit countries to coming to the aid of their partners in case of attack tend to increase trade, but these results do not hold for all types of defense agreements. In our model, trade openness has a positive effect on defense agreements.

It is not surprising that military aid is not correlated with military spending as military aid is given generally to more stable countries that spend less on their military, and not particularly surprising that military aid has a slight positive effect on defense agreements, giving some credence to Le Van's (2010) theory, though aid in general seems to have no effect on defense agreements. While autocracies spend more on military somewhat, they seem to make defense pacts.

²² There is a body of research that shows that food aid, a commodity that can be captured by rebel groups or government can prolong civil conflict such as Nunn and Qian 2014.

While further quantitative testing might yield more definitive results, the random effects models show that insecurity as measured by battle deaths clearly increases spending on the military, which is not such a surprise in civil war torn African nations. Countries spend on their military perhaps to reduce deaths, or as a result of the high death rates from wars. Trade may have a mitigating effect on military spending and security agreements also may mitigate insecurity as implied in table 4. The following sections investigate the cases of security agreements among the East African nations of Chad, the Sudan and Ethiopia.

5. Recent Bilateral Agreements Chad Sudan/Sudan Ethiopia

The 1970s and 80s brought a negative focus on the Horn of Africa region when Ethiopia’s socialist dictator Haile Mariam Mengistu developed strong ties with South Yemen’s communist regime, Siad Barre in Somalia, and their mother of communist influence—the Soviet Union.²³ While the Sudan had dropped its socialist ties, lost its subsidies from the East, and turned to the West during Nimeiri’s later years in power; much of the Horn and its surroundings were influenced by the Soviet Union.²⁴ Gadhafi was a threat to Chad from the far western flank of the Horn; and Joseph Kony, sometimes supported by the Sudan, threatened Uganda; the Sudan’s neighbor to the south. The Sudan threw off its communist leanings and helped the Tigray People’s Liberation Front overthrow the communists in Ethiopia. Chad repulsed Gadhafi from invading with the help of the US, the Sudan, and Egypt. The last decade has spurred new security agreements between Chad, Sudan, and Ethiopia. The authorities in all three countries are also on high alert for arms and people smuggling and transition of extremists across their territories, which partially brings in the element of the West and global international security.

Table 4. Partial list of pacts and agreements for Chad, Ethiopia and Sudan

<i>Date</i>	<i>Pact</i>	<i>Countries</i>
2006	Tripoli Agreement	Sudan – Chad
2008	Non Aggression Pact	Sudan – Chad
2010	Border Security agreement / Normalization	Sudan – Chad
2011	Khartoum Declaration / Border Security Agreement Extension	Sudan – Chad (and including C.A.R.)

²³ Peter Schwab. 1978. Cold War on the Horn of Africa. *African Affairs* 77(306): 6-20.

²⁴ Nimeiri was in power from 1969-85. Reuters, 2009. Sudan’s former president Nimeiri dies (May 30). <<https://www.reuters.com/article/us-sudan-nimeiri/sudans-former-president-nimeiri-dies-idUSTRE54T1BS20090530>>

2013	Mutual Legal Assistance Agreement on Criminal Matters between Sudan and Ethiopia	Sudan – Ethiopia
2014	Joint military operations agreement	Sudan – Ethiopia
2016	MOU on Trade, imports Port Sudan	Sudan – Ethiopia
2016	Single Border Agreement	Sudan – Ethiopia
2016	Joint Border exercises	Sudan – Ethiopia

5.1. Sudan/Ethiopia

Ethiopia and Sudan's relationship had been tense on numerous fronts; the border area a site for battles from the times of the Emperors and the Mahdi in the 19th century and a rebel launch area in the 20th century.²⁵ The Mahdi wars resulted in the death of Emperor Yohannes of Ethiopia two centuries back. In more recent history, Ethiopia's communist Derg regime headed by Haile Mariam Mengistu had welcomed the Marxist southern Sudanese rebels under John Garang, making attacks to the center of the Sudan accessible and dangerous to the capital. Conversely, the current Khartoum regime hosted Ethiopia's anti-communist rebels under the late Meles Zenawi of the Tigrayan People's Liberation Front, facilitating the overthrow of the Derg.²⁶ The minority Tigray ethnic group took over power from the Amhara who had been in power for a hundred years.²⁷ When the Sudan supported the rebels who ousted Ethiopia's communist regime, their relationship improved exponentially.²⁸ Al Bashir became close with Meles Zenawi when Meles kicked the southern Sudanese Marxist rebels (Sudanese Peoples Liberation Movement) and their Marxist leader John Garang out of Ethiopia where they had camps on the border of the Sudan. The good relationship forged with Meles was destroyed however, when the Sudan was implicated in the attempted assassination of Egyptian President Mubarak on his visit to Addis Ababa in 1995.²⁹ It took three long years and many visits between Ethiopia and Sudan's security chiefs and foreign ministers; before a new rapprochement between President al-Bashir and Prime Minister Meles Zenawi repaired the damage.³⁰ Ethiopia and the Sudan additionally bonded over their trials with Eritrea.³¹

²⁵ Rudolf C Slatin, *Fire and sword in the Sudan: a personal narrative of fighting and serving the Dervishes, 1879-1895* (Edward Arnold, London, 1896).

²⁶ David Shinn, 2003. Situation Report: Sudan and her neighbors. African Security Analysis Program. <<https://reliefweb.int/report/sudan/situation-report-sudan-and-her-neighbours>>

²⁷ October 2017 interview with Ambassador Osman al Sayeed, former Sudanese ambassador to Ethiopia

²⁸ Tigray People's Liberation Front assisted by the Eritrean People's Liberation Front

²⁹ Interviews with former Security Chief Khartoum May 2016

³⁰ Interviews with former Security Chief Khartoum May 2016

³¹ October 2017 interview with Ambassador Osman al Sayeed, former Sudanese ambassador to Ethiopia

Though traditionally Egypt and the Sudan's relationship was closer than that between the Sudan and Ethiopia, this had been gradually changing with new regional issues, and the Sudan's acceptance of its African roots along with the Arab ones. Apart from the rebel issues between the neighbors, the issue of paramount importance would again become the Nile waters. Ethiopia's Blue Nile supplies 85% of the Nile Waters, and while this is not as important to the Sudan as it is to Egypt, the Sudan is in a critical middle position between the two countries and has cultivated closer ties to Ethiopia to mediate the tense ties between Egypt and Ethiopia over the water and the dams that Ethiopia is constructing.³² Ethiopia benefits from trade and business, selling electricity and storing water in the reservoir created by the dam, and the Sudan stands to benefit from increased hydroelectric power output and development in its northern regions. The Sudanese have to manage their relationship with Egypt *vis à vis* Ethiopia. The Egyptians wanted the Sudanese to ally with them against Ethiopia, but the Sudanese are reluctant to do that since they are on good terms with Ethiopia.³³

A third issue that brings the Ethiopia and the Sudan together is their respective ethnic diversities and the conundrum of governance of these various tribes and groups. Since the time of Meles, his minority Tigray tribe has ruled the majority—in particular the Oromo and the Amhara. The Amhara people are in the Gadarif border area of the Sudan as well as their main residence in Ethiopia, and the Ethiopians fear rebellion fueled and supported on the Sudan side of the border.

Ethiopia has a state system loosely constructed around ethnic/tribal divides. This keeps some of the discontent at bay, but in 2016, the Oromo protested the center co-opting some of their land resulting in a heavy-handed repression by the Ethiopian security.³⁴ While the world regards Ethiopia as a Christian nation: regional polls show that the majority population is Muslim.³⁵ Ethiopia's ruling party is from the extreme minority ethnic Tigray population (6%); and technically, also possibly from the religious minority. The Ethiopians have been peaceful

³² Salman M. A. Salman. 2016. The Grand Ethiopian Renaissance Dam: the road to the declaration of principles and the Khartoum document. *Water International*, 41:4, 512-527, *Water International*, 41(4): 512-527.

³³ Interviews with former Security Chief Khartoum May 2016.

³⁴ What is behind Ethiopia's wave of protests. BBC 22 August 2016. <<http://www.bbc.com/news/world-africa-36940906>> (accessed January 2017)

³⁵ Interview with ILO principal in Khartoum 2014 and Security Chief May 2016 report regional polls of up to 60% Muslims in Ethiopia – CIA Factbook places the figure at 33.9% Muslim, 43.5% Orthodox Christian.

hosts of the Muslims from the time of the Prophet Mohamed, and have no problem with their Muslim neighbors in the Sudan, but they do have a real worry of extremists groups from Somalia, Syria, or Yemen stirring up their Muslim population against their minority government.³⁶ The Sudanese and the Ethiopians both fear growth of extremist Muslim groups. Furthermore, Ethiopia believes if extremist groups develop in the Sudan, then the problems will be greater in Ethiopia.³⁷ They don't want problems from the Sudan side as well as Somalia. Inside civil strife and the length of the border are great. If the bond is good, there are a lot of common interests met for the two countries, including keeping Eritrea's interference and incursion at bay.

Ethiopia's House of People's Representatives passed the 'Mutual Legal Assistance Agreement on Criminal Matters' with Sudan on December 8, 2013. It was a security cooperation pact that they had signed earlier in Khartoum stipulating an exchange of vital evidence and witnesses in criminal investigations as part of fighting cross border crimes and terrorism.³⁸ In April of 2013, Minister of Defense Siraj Fegessa reported a plan to establish joint forces with the government of the Sudan to tighten security along the border.³⁹ This was in particular to obstruct a growing cross-border criminal activity that they deemed an international problem during a time when East Africa is undergoing profound changes.

In 2014, the two nations reached another landmark agreement in Ethiopia's Capital Addis Ababa, on a joint military force to operate under a unitary command. This was based on an earlier memorandum of understanding signed by the two countries and mapped out eight fronts along their 800-kilometer porous mutual border. Sudan's Defense Minister Abdul Rahim Hussein (at that time) said that the agreement was to reinforce the already existing security cooperation between the two countries.⁴⁰

The nations' top military commanders conducted security talks in June of 2016, consulting on ways to combat regional security threats of terrorism, extremism, uncontrolled migration, and

³⁶ Ibid, though this situation has changed with the advent of a Muslim Prime Minister.

³⁷ Interviews with former Security Chief Khartoum May 2016.

³⁸ Yonas Abiye. Ethiopia: House Passes Ethio-Sudan Security Agreement Bill. *The Reporter* December 8, 2014. <<http://www.ethiomeia.com/11notes/2848>> (Accessed January 2017)

³⁹ Ibid Yonas Abiye. 2014

⁴⁰ Tesfa-Alem Tekle. 2014. Ethiopia and Sudan set to launch joint military operation. *Sudan Tribune* August 14, 2014. <<http://www.sudantribune.com/spip.php?>> (accessed January 2017)

illicit trade among other things threats.⁴¹ The Sudan joined whole-heartedly into East African issues and military cooperation for peace and security. They also signed an agreement for imports through Port Sudan and mutual trade, the week prior to the military talks. The Memorandum of Understanding was to develop the port for the benefit of both countries and to enhance economic cooperation—this being particularly important for Ethiopia as a landlocked state.⁴²

Gadarif State hosted the armed forces in August 2016, when the Sudanese joined the Ethiopians in military exercises, following up on the Ethiopian Defense Minister's plans to secure their mutual border area against human trafficking, drugs and arms smuggling.⁴³ At the operation's closing ceremony, MG Al-Sadiq Khalif , commander of the Second Sudanese Infantry, said, "We are working to enhance military cooperation, exchange of experiences, and the development of forces to instill a sense of respect for the two countries along the border, and the strengthening the citizens security and safety."⁴⁴

When the Ethiopian foreign Minister Workneh Gebeyehu met with Omar al Bashir in December 2016; the minister 'described Sudanese Ethiopian relations [as] "strategic" based on historical roots to serve the interests of the peoples of the two sisterly countries. "Sudan is at the top of our priorities," said the minister.⁴⁵ Concerned with their own issues of terrorism and regional stability; the minister also emphasized that the IGAD proposal is crucial for South Sudan peace. Ethiopia and the Sudan are clearly working on mutual security for their citizens, on regional and global security *vis a vis* terrorism, and on common economic advancement.

5.2. Chad/Sudan

⁴¹ Tesfa-Alem Tekle. Ethiopian and Sudanese military leaders begin security talks. *Sudan Tribune* June 9, 2016. <<http://www.sudantribune.com/spip.php?article59227>>

⁴² Tesfa-Alem Tekle. 2016. Ethiopian and Sudanese military leaders begin security talks." *Sudan Tribune* June 9. <<http://www.sudantribune.com/spip.php?article59227>>

⁴³ Sudan and Ethiopia in Joint Border Security Exercises. *Top News* August 21, 2016. <<http://smc.sd/en/2016/08/sudan-and-ethiopia-in-joint-border-security-exercises/>>

⁴⁴ Sudan and Ethiopia in Joint Border Security Exercises. *Top News* August 21, 2016. <<http://smc.sd/en/2016/08/sudan-and-ethiopia-in-joint-border-security-exercises/>>

⁴⁵ Ethiopian Foreign Minister Describes Ties as Strategic. *Sudan Vision Daily* 26 December 2016. <<http://www.sudanvisiondaily.com/index.php/new-posts/local-news/3112-ethiopian-foreign-minister-describes-ties-as-strategic>> (accessed December 26, 2016)

The border between Chad and the Sudan has been a fertile environment for armed movements on each side impacting the security of both countries, but recently security threats to the arena arrive from beyond domestic or bilateral squabbles and interference in each other's political affairs. Chad was intricately involved in the Darfur conflict and previously harassed over the years by Libya's Mommar Gadhafi—who tried to annex its disputed Aouzou Strip (and the rest of Chad) in the 1980s.⁴⁶ The United States, France, and the OAU sought to check Libya's invasions first with humanitarian aid, then military aid.⁴⁷ Washington provided some training of Chadian military personnel in the United States and signed the Mutual Defense Assistance Agreement with Chad in 1983 to send military equipment. In Operation 'Arid Farmer,' the US sent AWACS to patrol the Sudan Chad border and the 964th Airborne Warning And Control Squadron deployed to Khartoum, Sudan for possible support to Arid Farmer.⁴⁸ This was one of the earlier instances of international military aid prior to Islamic Jihad coming to the forefront of international concerns, but during the days of Gadhafi's involvement in hijackings, the days of Baader-Meinhof, Abbu Abbas, the Palestinian Liberation Organization, Black September, and other terrorist issues from the 1970s, 1980s and prior.⁴⁹

The current era of Idriss Déby, a career army officer like al-Bashir, began when he overthrew his former boss Habré in a 1991 coup.⁵⁰ The Extraordinary African Chambers of the Senegalese court sentenced Hissene Habré to life in prison in 2016 for abuses during his time in power—summary executions, forced disappearances, torture and rape.⁵¹ This was a classic case of Africans taking their own issues in hand, refusing the interference from the West and obtaining a conviction in an African court at the behest of the Chadian victims. Senegal had refused to extradite Habré to Belgium, and the internal courts had insisted on a trial. Habré ruled Chad from 1982 to 1990, defending Chad against Libyan aggression with aid in weapons and other assistance from the United States and France.

⁴⁶ A. Huliaras. 2001. Qadhafi's comeback: Libya and sub-Saharan Africa in the 1990s. *African Affairs*, 100(398), pp.5-25.

⁴⁷ Arid Farmer Chad Crisis. <http://www.globalsecurity.org/military/ops/arid_farmer.htm>

⁴⁸ Arid Farmer Chad Crisis. <http://www.globalsecurity.org/military/ops/arid_farmer.htm>

⁴⁹ J. Fine. 2008. Contrasting secular and religious terrorism. *Middle East Quarterly*. 59(1):59-69.

⁵⁰ BBC Chad Profile: Idriss Deby. <<http://www.bbc.com/news/world-africa-13164688>> (Accessed January 2017)

⁵¹ Oumar Ba. 2016. Hissène Habré, Chad's former dictator, just got a life sentence for crimes he committed in the 1980s. *Washington Post*, June 1. <https://www.washingtonpost.com/news/monkey-cage/wp/2016/06/01/hissene-habre-chads-former-dictator-just-got-a-life-sentence-for-crimes-he-committed-in-the-1980s/?utm_term=.ae14368afc52>

The interference of irredentist rebel groups goes as far back as the Tebus whose tribal member Goukouni Oueddei took over part of Chad with Libya backing. Cross border interference continued into the 21st century with Chad supporting Darfur rebels fighting the central regime and the Sudan supporting rebels against Deby's regime; until Déby and al-Bashir agreed to stop fighting proxy wars in each other's territory.⁵² Recently, the Libya based Chadian rebel group the FACT (*le Front pour l'alternance et la concorde au Tchad*) accused Libyan General Khalifa Haftar of bombing their training headquarters at the request of Déby with al-Bashir's collusion. Both the Sudan and Chad are historically wary of any aggression and interference by Libya from the days of Gadhafi. Khalifa Haftar is the head of the eastern forces linked to the parliament of Tobruk, not recognized by the international community.⁵³

Recent interference has been between Chad and the Sudan rather than Chad and Libya.⁵⁴

In 2008, President Idriss Déby and President Omar Hussein al-Bashir met and signed a historic non-aggression agreement.⁵⁵ Déby had been supporting his irredentist Zaghawa tribesmen in the Darfur region of the Sudan with their Justice and Equality rebel movement (JEM) bent on bringing down Bashir's regime, and in retaliation, al-Bashir supported rebel groups in Chad intent on overthrowing Déby's government in 2008.⁵⁶

Since those days, Bashir and Déby have kept a tight mutual defense relationship, signing a security agreement in May 2010 launching a joint border security force, and extending the agreement in 2011.⁵⁷ The command of command of these forces would rotate every six months between Chad and the Sudan, with the first term headed by the Sudan with forces based in West Darfur.⁵⁸ The agreement set up at time frame to form the joint forces and to set

⁵² Arid Farmer Chad Crisis. <http://www.globalsecurity.org/military/ops/arid_farmer.htm>

⁵³ Libye: une rébellion tchadienne accuse le général Haftar de l'avoir bombardeé. RFI Afrique 13 December 2016. <<http://www.rfi.fr/afrique/20161214-libye-une-rebellion-tchadienne-accuse-le-general-haftar-avoir-bombardee>>

⁵⁴ Tubiana, J., 2011. Renouncing the Rebels: Local and Regional Dimensions of Chad-Sudan Rapprochement. *Geneva: Small Arms Survey*.

⁵⁵ 'Chad, Sudan sign peace deal.' CNN March 13, 2008.

<<http://edition.cnn.com/2008/WORLD/africa/03/13/sudan.chad/index.html?eref=edition>>

⁵⁶ *Union des forces pour la démocratie et le développement* and the *Rassemblement des forces pour le changement* (Giroux 2009). Jennifer Giroux, David Lanz, and Damiano Sguaitamatti. 'The Tormented Triangle: The Regionalisation of Conflict in Sudan, Chad, and Central African Republic. Working Paper No. 47, Crisis States Working Paper Series No. 2 (ISN 1749-1800).

⁵⁷ 'Sudan and Chad Reach New Pact on Border Security.' *The New Sudan Vision* February 7, 2010.

<http://www.newsudanvision.com/index.php?option=com_content&view=article&id=2013:sudanese-and-chadian-governments-reach-new-pact-on-border-security&catid=3:international&Itemid=10>

⁵⁸ Musa 2017

up observatory stations along the border.⁵⁹ In addition to joint border monitoring, the document also included joint efforts to stop interference with the borders, to stop smuggling, and to reclaim stolen properties. The two nations agreed to submit reports on the joint security operation and coordinating the various security organizations. Importantly, the agreement was to stem the armed resistance on both sides of the border against their respective governments, i.e. to stop armed rebellions in the periphery. These joint efforts ensured intelligence sharing and the cooperation of police and security units on both sides of the border. So far the Chad and Sudan's efforts have resulted in camaraderie among the forces and successful augmentation of security.⁶⁰

Chad, the Sudan and the Central African Republic (CAR) met to discuss the expansion and continuation of joint border forces to enhance stability of the region. The three presidents (including Faustin Archange Touad r of CAR), met in the capital of North Darfur State in September 2016. CAR discussed joining the Chad-Sudan joint border patrol.⁶¹ More recently, the threats come through Libya in the form of irredentist rebels threatening Chad and Boko Haram coming from Nigeria through Chad; threatening all of northeast Africa. In addition to security protocols and joint forces, the declaration sets up trade zones (for a summary of the agreement see Appendix V). Thus economic concerns as well as security and peace are the foremost issues for nations wishing to partake in the world market.

6. Discussion - militarization, illiberal regimes, and aid

The Sudan at one point was heavily subsidized by the East bloc communist nations, then the IMF, then abandoned altogether. In more recent years aid comes again from the East (China) and the Middle East (Qatar, Saudi Arabia, UAE). Though at one time the US did not necessarily consider the Sudan an important player in the region; when Sadat was assassinated in 1981, the Sudan became more important as a backyard of Egypt and a strategic extension.⁶² Egypt had developed close ties with the US after the Camp David Peace Accords and participated with the US, some other European nations, Jordan, Kuwait, Oman, the UAE, Somalia, and the Sudan in joint military exercises for Operation Bright Star that began in

⁵⁹ Ibid 43

⁶⁰ *Annual Report of the Sudanese Higher Military Academy*. 2016. Issue 15, December.

⁶¹ CAR, Chad and Sudan leaders discuss joint border force. *Sudan Tribune* 7 September 2016.

<<http://www.sudantribune.com/spip.php?article60169>>

⁶² Interview with former security chief of the Sudan, Khartoum May 2016.

1980 and became a biennial event through US Central Command (CENTCOM).⁶³ Sudanese forces trained with Americans in Operation ‘Bright Star’ 1982 with Egypt, Somalia, and Oman.⁶⁴ It has been a long time since there were close relations between the Sudan and the United States, though that is changing with recent sanctions lifting and intelligence cooperation. US/Western relations with Ethiopia are also intermittently strained because of autocratic tendencies and violence in the periphery. The relationship is bolstered by Ethiopia’s stance against al Shabaab in Somalia and its strong securing of its borders. As already mentioned, the United States finally rendered aid to Chad to push back Libyan aggression, and currently cooperates on other terrorism issues. The figures below show the ten-year average Aid as a percent of the GDP of each country and the average spending on the military.

Figure 6 10 Year Average Aid received as % GDP and Spending on Military as Percent GDP (2005-2014)

<i>Country</i>	<i>Military Aid</i>	<i>US Aid</i>	<i>Total Aid</i>	<i>Military Spending</i>
Chad	0.03 %	0.91%	3.38%	4.61%
Ethiopia	0.03%	2.31%	6.83%	1.42%
Sudan	0.21%	1.40%	3.28%	4.34%

World Bank Data/ http://securtyassistance.org/data/country/military/country/1996/2016/is_all/Africa/

Chad in particular is a country of interest to the West due to Boko Haram, Daesh, and the threats from a destabilized Libya as opposed to previous threats from Gadhafi. These are not just global threats, but are also regional threats. Groups such as Daesh, Boko Haram, Al Shabaab, and AQIM (Al Qaeda in the Islamic Maghreb) threaten the internal stability of the countries, yet in 2017 there are still tribal and rebel threats in the region that inhibit economic growth and development. Though Chad is an international partner in counter terrorism (including the United States), it is not a high recipient of aid, and recent drops in oil prices and austerity measures threaten to destabilize the country and Idriss Déby’s longstanding

⁶³ Jonathan Montgomery. 2005. Operation Bright Star: a History of Multinational Forces Cooperation.

<<https://www.dvidshub.net/news/printable/3070>> Accessed September 2016

⁶⁴ Eastern Order of Battle. ‘Operation Bright Star ’82.’

<http://www.easternorbat.com/html/bright_star_82_part_two_end.html>

Richard Halloran. 1983. U.S. Said to Delay Some War Games. *New York Times* July 31, 1983. <

<http://www.nytimes.com/1983/07/31/world/us-said-to-delay-some-war-games.html>>

government—making it a fragile partner.⁶⁵ All the more reason for firm alliances with its partner to the East, Sudan, and firmly entrenching itself in a militarized regime. Chad's Déby and the Sudan's al-Bashir have also thrown the communication avenues wide open with recent multiple visits and renewal of pacts to defend the borders.

On the side of Ethiopia and the Sudan, they are focusing on development, stability and electricity and taking consistent measures to communicate and conduct operations to ensure stability.⁶⁶ Sharing security expenses with regional partners was the idea behind EASF (East Africa Standby Forces), thus to a certain extent, Chad, Sudan, and Ethiopia have created smaller versions of EASF with bilateral cooperation—creating more immediate and manageable solutions. With cooperation, these three countries manage a type of governance in periphery and on the borders, that is geared toward security and trade, though it does not necessarily look like Western governance.⁶⁷

Chad, and Sudan's government remain firmly in place, while Ethiopia's government is undergoing changes.⁶⁸ Licht 2010 examines the impact of aid on leader survival resulting in different affects depending on democratic or autocratic governments and how long they have been in office.⁶⁹ While new democratic regimes may benefit from aid initially, it becomes a liability over time according to Licht, but she concludes that entrenched autocracies may benefit from aid. Many African countries have autocratic regimes, and in particular Sudan, Chad and Ethiopia; though outside aid may alleviate the need for government spending on feeding the population or refugee relief, it may not go directly to the government paying off supporters. While the militarization may well entrench the governments, it may also confirm Bapat's theory that it will keep extremists out of power.

⁶⁵ Alex Thurston. Austerity and Unrest in Chad. *Africa Year in Review 2016 (Chapter 1)*, Woodrow Wilson Center. <https://www.wilsoncenter.org/sites/default/files/africa_year_in_review_2016_1.pdf>

⁶⁶ Maru, Mehari Taddele. 2014. Ethiopia's Regional Diplomacies: A Dominant Interpretation of the Horn of Africa. *Horn Affairs* Online October 29

<<http://hornaffairs.com/en/2014/10/29/ethiopia-diplomacies-dominant-interpretation-horn-of-africa/>>

⁶⁷ Metelits 2016 discusses the issue of security threats in Africa and its relevance vis a vis the West.

⁶⁸ Ethiopia's Prime Minister was forced to resign in February 2018. According to one Sudanese former official, the uprising of the Oromo people partially instigated by Egypt due to their ire over the dam is one of the causes.<<http://www.aljazeera.com/news/2018/02/ethiopia-prime-minister-hailemariam-desalegn-resigns-180215115215988.html>>

⁶⁹ There is a larger body of literature on foreign policy and regimes, aid and growth, aid and democracy; and 'selectorate' theory (Buono de Mesquita et al. 2005), where goods are distributed to a small coalition supporting autocracy, but larger coalitions in democracy are prohibitively expensive. Whether or not this money comes from aid is debatable. Aid may substitute for government spending, but doesn't directly go to government.

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Appendix I: Description and Sources of Variables used in the Regression Analysis

Variable	Definition	Source
Total Aid	Total aid as ratio of GDP	World Bank’s World Development Indicators
Development aid	Development aid as ratio of GNI	World Bank’s World Development Indicators

USAID	United State Aid as ratio of GDP	World Bank's World Development Indicators
Military Aid	Military aid as ratio of GDP	http://securtyassistance.org/data/country/military/country/1996/2016/is_all/Africa/
Armed forces	Armed forces as ratio of total labor force	World Bank's World Development Indicators
Military imports	Military imports as ratio of GDP	World Bank's World Development Indicators
Military Expenditure	Military expenditure as ratio of GDP	World Bank's World Development Indicators
Defense Agreements	Defense agreement measured by the number of bilateral agreements	Correlates of War Data (with recent Chad/Sudan/Ethiopia added)
Population	Total population in Millions	World Bank's World Development Indicators
GDP	GDP per capita, PPP (constant prices 2011)	World Bank's World Development Indicators
Autocracy	1-10; 10 being greatest autocracy	Polity IV Data
Battle	Number of battle deaths	World Bank's World Development Indicators
Trade	Measured by the ratio of (Exports +Imports) to GDP	IMF Financial Statistics and World Bank's World Development Indicators
Manufacturing	Manufacturing value added as ratio of GDP	World Bank's World Development Indicators
Infrastructure	Mobile Cellular Subscriptions (per 100 people)	World Bank's World Development Indicators
Education	Educational equality measures to what extent is high quality basic education guaranteed to all, sufficient to enable them to exercise their basic rights as adult citizens?	Varieties of Democracy Data (V-Dem) database
Corruption	Index of corruption: is an index created from indicators of executive bribery, executive embezzlement, public sector bribery, public sector embezzlement, legislative corruption, and judicial corruption using Bayesian factor analysis. This index is rescaled to vary between 0 and 1 and to imply that higher values mean greater corruption	Varieties of Democracy Data (V-Dem) database

Note: All the variables are expressed in the natural logarithm except for Defense Agreements and those variables that are already ratios of the variable to GDP

Appendix II: Summary Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Armed forces	1180.000	1.169	1.628	0.000	13.398
Military imports	1174.000	1.221	3.298	0.000	41.996
Military Expenditure	457.000	10.683	8.124	0.675	88.206
Military Expenditure % GDP	1187.000	2.461	3.047	0.000	39.607
Defense Agreements	2295.000	1.807	1.507	0.000	8.000
Population	2540.000	67.280	17.309	12.844	97.389
Autocracy	2266.000	4.567	3.155	0.000	10.000
GDP per capita	2251.000	1847.007	2594.288	115.436	20172.310
Battle deaths	355.000	1275.099	4108.634	0.000	49698.000
Trade openness	2177.000	72.763	45.343	6.320	531.737
Manufacturing	1698.000	11.452	6.517	0.237	39.465
Corruption	2553.000	0.631	0.237	0.040	0.982
Infrastructure	2180.000	15.243	31.845	0.000	180.445
Education quality	2553.000	-0.350	1.024	-2.956	2.084
Total aid	2178.000	7.123	7.618	-0.307	105.149
Development aid	2134.000	10.598	11.765	-0.253	181.187
US aid	2006.000	1.033	1.847	-0.107	32.468
Military aid	774.000	0.168	0.704	0.000	10.213

Appendix III: Battle Deaths, Military Spending Defense Pacts, and Aid

Country	10yAverage Log Battle Deaths	10yAverage Military Spending %GDP	Defense Pacts 2012	10y Average Aid %GDP
Algeria	2.41	3.81	3	0.16
Angola	0.28	4.27	4	1.45
Benin	0.00	0.94	2	5.24
Botswana	0.00	2.64	1	1.45
Burkina Faso	0.00	1.41	2	7.12
Burundi	0.69	2.96	3	18.16
Cameroon	0.28	1.39	1	3.00

Cape Verde	0.00	0.56	2	11.85
CAR	1.24	1.39	4	9.60
Chad	1.27	4.61	3	3.38
DRC	2.52	1.10	5	9.03
Congo	0.00	2.35	3	4.63
Comoros	0.00	..	1	6.76
Djibouti	0.15	5.12	2	8.75
Egypt	0.23	2.15	7	0.45
Equatorial Guinea	0.00	2.09	1	0.22
Eritrea	0.00	24.02	1	7.43
Ethiopia	1.91	1.42	4	6.83
Gabon	0.00	1.46	2	0.45
Gambia	0.00	1.02	2	4.96
Ghana	0.00	0.51	1	3.07
Guinea	0.00	3.31	4	4.00
Guinea-Bissau	0.00	1.98	2	8.88
Ivory Coast	0.15	1.52	2	2.96
Kenya	0.48	1.55	3	3.41
Lesotho	0.00	2.40	1	5.91
Liberia	0.00	0.75	5	42.09
Libya	0.58	2.74	6	0.25
Madagascar	0.00	0.85	2	4.97
Malawi	0.00	0.87	2	10.60
Mali	1.70	1.35	2	7.39
Mauritania	0.00	2.84	3	4.22
Mauritius	0.00	0.17	2	1.08
Morocco	0.00	3.35	3	1.21
Mozambique	0.14	0.85	1	12.66

Country	10yAverage Log Battle Deaths	10yAverage Military Spending %GDP	Defense Pacts 2012	10y Average Aid %GDP
Niger	0.51	1.07	2	7.93
Nigeria	1.48	0.59	2	1.58
Rwanda	0.11	1.36	3	10.78
Senegal	0.14	1.56	2	5.21
Seychelles	0.00	1.25	2	1.39
Sierra Leone	0.00	1.05	2	11.09
Somalia	2.83	..	2	16.45
South Sudan	2.74	6.78	1	9.04
Sudan	2.81	4.34	7	3.28
South Africa	2.51	1.18	2	0.29

Swaziland	0.00	2.15	3	1.32
Tanzania	0.00	0.87	1	5.68
Togo	0.00	1.72	1	5.82
Tunisia	0.00	1.47	3	1.30
Uganda	0.70	2.10	3	6.84
Zambia	0.00	1.50	3	5.23
Zimbabwe	0.00	2.27	2	6.63

Appendix IV: Battle Deaths, Military Spending, Military Aid, Democracy

Country	10yAverage Log Battle Deaths	10yAverage Military Spending %GDP	10yAverage Mil AID %GDP	10yAverage Democracy Score
Algeria	2.41	3.81	1.34	3.00
Angola	0.28	4.27	0.01	2.00
Benin	0.00	0.94	0.01	6.90
Botswana	0.00	2.64	0.01	8.00
Burkina Faso	0.00	1.41	0.03	2.00
Burundi	0.69	2.96	0.25	7.00
Cameroon	0.28	1.39	0.01	1.00
Cape Verde	0.00	0.56	0.06	10.00
CAR	1.24	1.39	0.24	1.00
Chad	1.27	4.61	0.03	1.00
DRC	2.52	1.10	0.10	6.00
Congo	0.00	2.35	0.00	0.00
Comoros	0.00	..	0.07	9.00
Djibouti	0.15	5.12	0.63	3.40
Egypt	0.23	2.15	0.77	0.67
Equatorial Guinea	0.00	2.09	0.00	0.00
Eritrea	0.00	24.02	0.04	0.00
Ethiopia	1.91	1.42	0.03	1.20
Gabon	0.00	1.46	0.01	2.40
Gambia	0.00	1.02	0.04	0.00
Ghana	0.00	0.51	0.01	8.00
Guinea	0.00	3.31	0.02	2.20
Guinea-Bissau	0.00	1.98	0.07	5.60
Ivory Coast	0.15	1.52	0.00	5.00
Kenya	0.48	1.55	0.06	7.90
Lesotho	0.00	2.40	0.02	8.30
Liberia	0.00	0.75	4.04	7.00
Libya	0.58	2.74	0.01	0.00
Madagascar	0.00	0.85	0.00	5.20
Malawi	0.00	0.87	0.01	6.00

Mali	1.70	1.35	0.15	6.78
Mauritania	0.00	2.84	0.28	0.40
Mauritius	0.00	0.17	0.01	10.00
Morocco	0.00	3.35	0.03	0.40
Mozambique	0.14	0.85	0.02	5.20

Country	10yAverage Log Battle Deaths	10yAverage Military Spending %GDP	10yAverage Mil AID %GDP	10yAverage Democracy Score
Niger	0.51	1.07	0.17	7.00
Nigeria	1.48	0.59	0.00	4.00
Rwanda	0.11	1.36	0.02	0.00
Senegal	0.14	1.56	0.04	7.20
Seychelles	0.00	1.25	0.04	..
Sierra Leone	0.00	1.05	0.10	7.40
Somalia	2.83	..	5.89	5.00
South Sudan	2.74	6.78	0.40	0.00
Sudan	2.81	4.34	0.21	0.29
South Africa	2.51	1.18	0.00	9.00
Swaziland	0.00	2.15	0.01	0.00
Tanzania	0.00	0.87	0.01	2.00
Togo	0.00	1.72	0.01	1.00
Tunisia	0.00	1.47	0.07	1.86
Uganda	0.70	2.10	0.06	1.00
Zambia	0.00	1.50	0.00	6.40
Zimbabwe	0.00	2.27	0.00	2.60

Appendix V: Khartoum Declaration

From Reem Musa (2017 ??) translated by Sahar elFaki
[GET NAME OF PAPER and date]

Regarding the Khartoum Declaration and in terms of the security aspect, the tri-partnership for peace and development read as follows:

1- to activate the agreement of forming tri-joint forces with the mandate to protect the borders of the three countries

- 2- ri-coordination between the interior ministries to control and contain, smuggling, looting, cross borders from organized crimes and infiltration
- 3- encouraging peaceful co-existence between the joined tribes across the border, in addition to resolve the disputes which arise between nomadic grazing tribes across the border by peaceful means.
- 4- encouraging the voluntary repatriation of the refugees living in the three countries, as well as enabling their native competent authorities to visit them in their refugees camps periodically according to the international law and norms, beside protecting those refugees from abuse and human trafficking
- 5- establishment of tri-mechanism to deal with the security and military issues, it shall hold periodic meeting for assessment, provide advise and consultancy, this mechanism should be promoted to an executive level and to be capable of executing its jurisdiction to implement the mechanism of the tri-agreements

In terms of political and diplomatic aspect, Khartoum Declaration stated that:

- 1- the three countries shall exchange and share their views concerning regional and international issues, as well as supporting and show bipartisan at the regional and international platforms, and building bridges between the political bodies and civil society groups
- 2- establishment of suitable mechanisms and structures to promote collaboration between the neighboring states and provinces along the borders of the three countries, paving the way to create a tri-integration and comprehensive zone
- 3-tri-summits shall be held annually on a rotational basis

In terms of trade and services the Khartoum Declaration stated that:

- 1- establishment of preferential Trade Zone between the three countries, and setting a protocol to organize trade across borders, as well as designing an agreement for transit trade
- 2- creation of joint follow-up committee, to tackle the problems and commercial disputes that arise between the party states

Results of Random Effect Estimation: Military Expenditure as % of total expenditure

Dependent Variable: Military Expenditure as % of total expenditure				
Variable	Model 1	Model 2	Model 3	Model 4
Population	-4.863* (2.726)	-4.456* (2.711)	-4.962* (2.674)	-2.913 (3.202)
AUT	0.134 (0.229)	0.237 (0.234)	0.142 (0.225)	0.756 (0.422)
GDP per capita	0.254 (1.333)	0.551 (1.338)	0.619 (1.262)	0.242 (1.794)
Battle	0.485 (0.370)	0.332 (0.379)	0.530 (0.374)	0.458 (0.668)
Trade openness	0.016 (0.020)	0.012 (0.020)	0.016 (0.020)	0.073* (0.065)
Manufacturing	0.001 (0.098)	-0.041 (0.100)	0.008 (0.099)	-0.095 (0.154)
Defense Agreements	0.075 (0.471)	-0.230 (0.499)	0.069 (0.479)	0.513 (0.562)
Corruption	1.329 (2.290)	1.606 (2.279)	1.352 (2.314)	-1.411 (20214)
Infrastructure	-0.014 (0.012)	-0.016 (0.012)	-0.015 (0.012)	-0.011 (0.013)
Education quality	-2.652** (1.142)	-2.506** (1.136)	-2.750** (1.137)	-2.243 (1.439)
Total aid	0.015 (0.117)			
Development Aid		-0.025 (0.84)		
USAID			0.644* (0.374)	
Military Aid				1.173 (0.656)
Constant	44.288* (23.769)	41.095* (23.531)	41.830* (22.904)	22.344 (27.256)
R ²	0.029	0.030	0.040	0.018
Wald chi2	24.12 (0.012)	25.81(0.006)	28.02(0.003)	48.24 (0.000)
Hausman Test	45.03(0.000)	460.80 (0.000)	40.22	220.26(0.000)
No of Observations	315	314	309	221

Notes: Figures in Parentheses are standard errors

***, ** and * denotes significance at the 1, 5 and 10 percent level