

# The Relative Effectiveness of Economic versus Military Aid in Combating Terrorism: A Study of Africa

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## Motivation

This paper attempts to link the literatures on foreign aid and terrorism. A key security goal in the post-9/11 world has been the reduction of terrorism. Governments tend to speak broadly about the power of aid to reduce poverty, foster goodwill, and increase security. Some have launched aid programs with explicit counterterrorism goals. However, these linkages remain untested. **How effective are different types of aid flows in reducing terrorism?**

This study uses an instrumental variables approach to examine the causal impact of disaggregated US aid flows on the number and targets of terrorist attacks in African countries from 1970 to 2008.

## Data

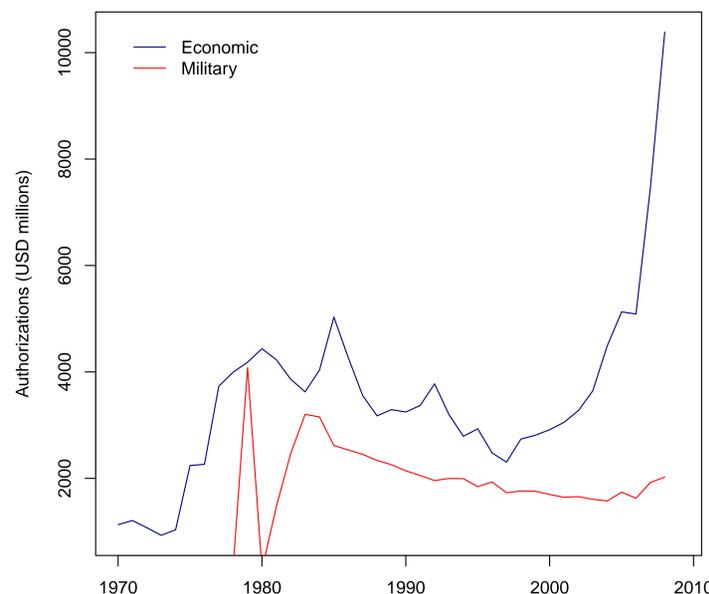
**Explanatory variable:** Data on US bilateral economic and military aid to African countries from 1970 to 2008 are drawn from the USAID Greenbook. Of the country-years in the dataset, 88.9% received economic aid and 56.0% received military aid. Average annual economic aid totaled \$75.7 million and military aid \$31.1 million.

**Dependent variable:** Data on the number of terrorist attacks per African country-year are drawn from the University of Maryland Global Terrorism Database. The sample includes 2,028 attacks in 52 African countries from 1970 to 2008. Attacks span nine categories: bombings, armed assaults, assassinations, facilities attacks, hijackings, hostage kidnappings, hostage barricade incidents, unarmed assaults, and unknown. There are nine target types: citizens, journalists, other terrorist groups, the government, tourists, NGOs, police, the military, and diplomatic offices.

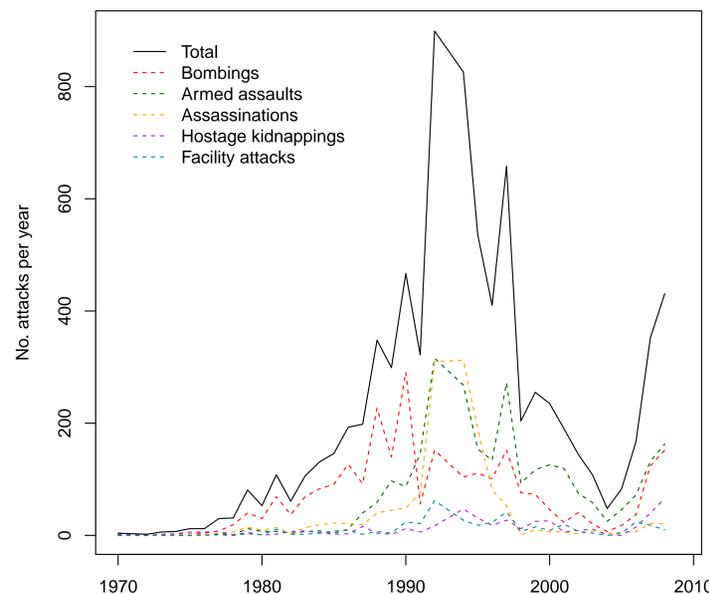
**Control variables:** GDP, GDP per capita, GDP growth, population, land area, export intensity, Polity 2 score, civil war, interstate war, ethnic fractionalization, religious fractionalization, Muslim share of population.

## Historical Trends

### US Economic and Military Aid to Africa



### Frequency of Terrorist Attacks in Africa



## Instrument Validity: British Colonial Legacy

A valid instrument strongly affects the explanatory variable (US aid) but does not directly affect the dependent variable (the number of terrorist attacks in any given country-year). British colonial legacy fulfills these criteria because a disproportionate amount of US aid goes to former British colonies, but controlling for substantively important variables, it is not significantly correlated with terrorist attacks.

## Methodology

Because the data are strongly overdispersed, TSLS estimation of a negative binomial model is used to assess the causal impact of US aid on terrorism. At the first stage we estimate the instrument for foreign aid:

$$aid_{it} = N(\mu, \sigma^2)$$
$$\mu_{it} = colonialstatus_{it} + controls_{it}$$

At the second stage we estimate the impact of aid on the number of attacks:

$$attacks_{it} = Nbin(\phi, \sigma^2)$$
$$\phi_{it} = exp(aid_{it} + controls_{it})$$

## Results

Military aid does not statistically significantly affect terrorism in Africa.

Economic aid statistically significantly decreases armed assaults, assassinations, hijackings, unknown attacks, and attacks on the police. It also leads to more kidnappings, a surprising finding perhaps linked to the presence of more aid workers. Even though economic aid reduces terrorism in Africa, the cost of doing so is high, ranging on average from \$170 million per one hijacking to \$2 billion per one armed assault.