

How does terrorism affect customs fraud of gold minerals?

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Outline	Motivation	What we do	Empirical strategy	Results	Results	Results	Conclusion
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Outline

- ▶ **Background and motivation**
- ▶ **What we do**
- ▶ **Data and stylized facts**
- ▶ **Empirical methodology and variables**
- ▶ **Estimates results**
- ▶ **Concluding remarks**

Events/ facts that motivated the study :

- (1) African countries are main exporter of gold ;
- (2) Often one of the main sources of public revenue for these countries ;
- (3) Borders are the battleground between government troops and terrorist groups for several African countries ;
- (4) Combination of smugglers and terrorist groups to control trade routes and establish violence affects customs operations.

In this context, the illicit gold trade challenges the customs administration.

 **Question** : Does terrorism affect gold customs fraud ?

In connection with the recent literature on the performance of customs administrations (Cantens and Raballand (2017 ; 2021), Cantens(2019))

The article empirically analyzes the impact of terrorism on customs fraud of gold in Africa.

- (1) Establishing an empirical link between terrorism and customs fraud, based on the building and use of an original African database ;
- (2) Contributing to the debate about Tilly (1985) theory on the role of war in state-building ;
- (3) Only study focusing on customs fraud of gold at the borders of conflict countries.

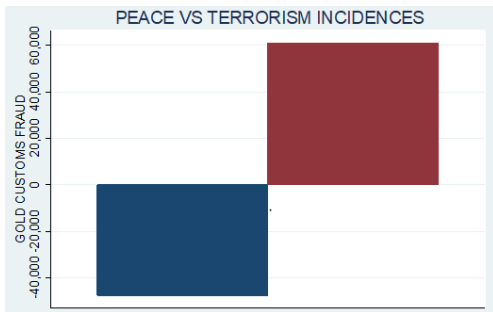
Panel of 50 African countries between 2000 and 2019 ;

☛ “Customs fraud” = missing gold export (gold mirror data from COMTRADE) ;

☛ “Incidence of terrorism” = civil deaths during terrorist acts (Global Terrorism Database, GTD) ;

☛ Control variables : Trade openness, mineral rents, GDP per capita, and Corruption.

Some stylized facts



We estimate the following empirical specification :

$$CUSTOMSFRAUDI, t = \alpha + \beta DEATHSi, t + \mathbf{Z}_{i,t}\delta + \lambda_i + \zeta_t + \varepsilon_{it}$$

Where :

$CUSTOMSFRAUDI, t$ refers to Missing gold export for country i and year t

$DEATHSi, t$ measures civil deaths during terrorism incidence ;

$\mathbf{Z}_{i,t}$ is a vector of covariables ;

λ_i denotes country specific characteristics ;

ζ_t is time-varying factors.

Baseline

	[1] OLS	[2] FIXED EFFECT
Log. DEATH	0.4536*** (0.1489)	0.5780*** (0.1552)
CORRUPTION	-0.3628 (0.6287)	2.7025 (1.9866)
GDP per Capita	0.0003** -0.0166 (0.0110)	0.0016*** -0.0768*** (0.0211)
RENT	0.1164 (0.0999)	0.2341 (0.2323)
Constant	14.2262*** (0.9528)	17.9977*** (2.4291)
Nb. of observations	1000	1000
Countries	50	50
Country fixed effect	YES	YES
Hausman test	FE	FE
Year fixed effect	YES	YES

Significance : *** 1%, ** 5%, * 1% Standard errors in parentheses

Effect of terrorism on gold customs fraud (Instrumental variables for panel-data models)

	[1] 2LS
Log. Death	0.5200*** (0.1654)
Corruption	-0.0361 (1.0741)
GDP per Capita	0.0004** (0.0001)
Rent	0.1493* (0.0812)
Trade	0.0351** (0.0155)
Constant	14.2262*** (0.9528)
Nb. of observations	1000
Countries	50
Country fixed effect	YES
Hausman test	FE
Year fixed effect	YES
Significance : *** 1%, ** 5%, * 1% Standard errors in parentheses	

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Baseline Results

Terror raises illicit gold export ;

Results support the assumption of Cantens et al. (2019) that terrorist activities decrease customs efficiencies at borders and weaken the state consolidation, challenging Tilly's theory.

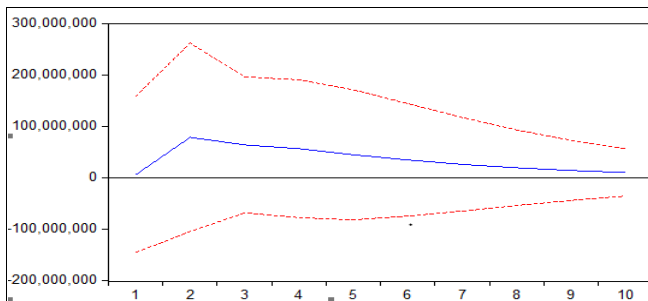
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	○	○	○		○	○	○
		○					○

Robustness

	[1]
	GMM
CUSTOMS FRAUD (LAG)	0.7401*** (0.0908)
STABILITY	-1.7947** (0.8145)
CORRUPTION	-0.0361 (1.0741)
GDP per Capita	-0.0002 (0.0006)
RENT	1.2419* (0.3371)
TRADE	0.0053* (0.0150)
Constant	2.1118*** 1.4824
Nb. of observations	000
Countries	50
AR(1) p-value	.0046
AR(2) p-value	.8032
Hansen OID (p-value)	.5969

Significance : *** 1%, ** 5%, * 1% Standard errors in parentheses

Figure – Impulse response of gold customs fraud to terrorism



Notes: the x-axis measures units of customs fraud, the y-axis measures time

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Summing up

This paper provided *a strong empirical evidence on the effect of terrorism on Customs Fraud in Africa* by addressing the potential issue of endogeneity.

Terrorism increases the gold customs fraud in Africa.

In consequence, decreases public administration efficiency.

States affected by terrorism need to pay more attention to the trafficking of gold as this is a prized mineral for terrorist groups.

- ☞ State must necessarily get the various state services to work together, particularly the army, the police and the customs.
- ☞ The institutionalization of this cooperation remains a real challenge for these states.
- ☞ The use of data such as geolocation data, satellite data, etc., to anticipate and detect fraud at customs administration.

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