

Decolonization and Fiscal Capacity: Event Study Evidence from Africa

American Economic Association Annual Meetings

San Francisco, CA

January 5, 2025

Dhammika Dharmapala

UC Berkeley School of Law

Marvin Suesse

Trinity College, Dublin



Motivation

- **There is a vast literature across many academic disciplines on the consequences of colonial rule**
 - e.g., Acemoglu, Johnson, and Robinson (2001)
- **Literature on “why do developing countries tax so little?”**
 - Besley and Persson (2014)
 - Fiscal capacity (relative to GDP) is lower in developing countries
- **Fiscal capacity:** refers to “hard-to-collect” taxes that require sophisticated administrative and legal infrastructure
 - Our definition: direct (income) taxes + certain indirect taxes (VAT)
 - Excludes trade taxes and resource revenues



Data

- Albers, Jerven and Suesse (2023) construct a novel dataset on the fiscal history of 44 African countries over 1900-2015
 - Colonial and post-independence budget records
 - Revenue sources are classified using IMF categories
 - Comparable over time
- **Code decolonization events**
 - National independence
 - Self-government or African majority rule
- **Fiscal Capacity:** unit is labor days (the number of days a typical urban worker must work to earn an amount = nominal tax revenue per capita)



Fiscal Capacity

Nominal revenue from “hard-to-collect” taxes

$$R_{it} = D_{it} + ID_{it}$$

Broad-based indirect taxes

Direct taxes

Nominal revenue from “hard-to-collect” taxes per capita

$$FC_{it} = \frac{\frac{R_{it}}{Pop_{it}}}{w_{it}} = \frac{R_{it}}{Pop_{it} * w_{it}}$$

Nominal daily wage

Measured in wage days:

- Unaffected by currency changes
- Can be computed even when GDP data is missing
 - Essentially, nominal revenue is deflated by the daily nominal wage
 - Could ↓ in wage → ↑ in FC? Yes, but independence typically → wage ↑



Empirical Strategy: Stacked Event Study

- Recent econometric literature: TWFE implementation of the staggered DiD design is highly problematic
- We use a **stacked event study**
 - Stack a series of mini-datasets
 - Each mini-dataset consists of the countries that were treated in a given year (e.g., Ghana in 1957), plus a set of never-treated control countries
 - Ethiopia and Liberia are excluded (never colonized)
 - In our setting, all countries were eventually treated
 - To obtain “clean” controls, we truncate the data to 1900-1972 and use Angola, Guinea-Bissau and Mozambique (decolonized in 1975) as the control countries



Empirical Strategy: Stacked Event Study

$$Fiscal\ Capacity_{its} = \sum_{\substack{k=-11, \\ k \neq -1}}^{11} \varphi_k b_{its}^k + (\omega X_{it}) + \mu_{is} + \delta_{ts} + \epsilon_{its}$$

Event-time coefficients

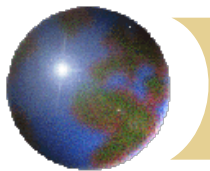
Country-by-stack and year-by-stack FEs

where, noting that $1\{\cdot\}$ is the indicator function:

$$b_{its}^k = \begin{cases} 1\{t - t_{is}^* \leq -11\} & \text{if } k = -11 \\ 1\{t - t_{is}^* = k\} & \text{if } k \in [-10, 10] \\ 1\{t - t_{is}^* \geq 11\} & \text{if } k = 11 \end{cases}$$

Truncating sample in 1972 yields control group:

- Baseline: national sovereignty
 - Angola, Guinea-Bissau and Mozambique
- Alternative: self-government or indigenous rule
 - Angola, Guinea-Bissau and Mozambique, Namibia, South Africa, and Zimbabwe

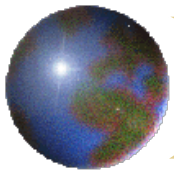


Balance Across Treated v. Control Countries

Variable	Panel A: Treatment Countries (Pre-Decolonization Years Only)			Panel B: Control Countries, 1900-1972		
	Obs.	Mean	Standard Deviation	Obs.	Mean	Standard Deviation
Fiscal capacity measure (baseline), in labor days	1,860	5.545465	4.738109	142	7.075341	4.614509
Direct and indirect tax revenue (incl. trade taxes) in labor days	1,860	9.893586	7.795681	142	11.66022	6.541109
Direct tax revenue in labor days	1,860	4.118987	3.924802	143	5.486817	4.015594
Indirect tax revenue (excl. trade taxes) in labor days	1,861	1.425869	1.964943	142	1.60177	1.661177
Trade tax revenue in labor days	1,861	4.346746	4.836515	143	4.591402	2.540508
Total revenue in labor days	1,845	16.10657	12.1364	142	27.07706	17.80165
Population	2,269	3409345	4667243	219	3257891	2445299
Area (sq. km)	2,269	627789.2	662982.3	219	687066.7	50351
Forced labor (lower bound) in labor days	2,269	1.003157	1.519977	219	7.561644	4.846
Forced labor (upper bound) in labor days	2,269	5.895673	7.830007	219	18.90411	12.11
Ethnolinguistic fractionalization index	2,269	.6094255	.2574095	219	.7473229	.0660
European settlers in 1900 (fraction)	2,269	.013331	.036528	219	.035	.0334931

**Generally well-balanced
but some differences:**

- Forced labor
- European settlers



Baseline Finding

Main finding: No pre-trends; a substantial increase in fiscal capacity about 5-6 years after decolonization

