

Where Did Africa's Resource Curse Go?

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Outline

- 1 The natural resource curse hypothesis
 - What is the natural resource curse hypothesis?
 - (By the way, what is “natural resource abundance”?)
- 2 Natural resources and development outcomes in Africa
 - Economic stagnation?
 - Authoritarian rule?
 - Violent conflict?
- 3 A research agenda
 - Is current resource-led growth sustainable?
 - Do macro-level successes obscure micro-level failures?
 - Is oil different?

The resource curse hypothesis

The hypothesis

Having abundant natural resources (especially minerals and oil) leads to undesirable development outcomes, such as:

- slow economic growth,
- authoritarian rule (lack of democracy), and
- violent political conflict.

“hypothesis”

hypo (less than) *thesis* (argument) = “less than argument”

That is, an explanatory claim with uncertainty attached to it.

Influential statistical studies finding a resource curse

Slow economic growth

“A surprising feature of modern economic growth is that economies with abundant natural resources have tended to grow slower than economies without substantial resources.”

Jeffrey Sachs and Andrew Warner (1997).

Authoritarian rule

“The antidemocratic properties of oil and mineral wealth are substantial.”

Michael Ross (2001)

Violent conflict

“Primary commodity exports substantially increase conflict risk.”

Paul Collier and Anke Hoeffler (2004)

Statistical studies disputing the resource curse

Slow growth

“Natural resource abundance has not been a significant structural determinant of economic growth.”

Jean-Philippe Stijns (2005)

Authoritarian rule

“Oil and mineral reliance does not promote dictatorship.”

Stephen Haber and Victor Menaldo (2011)

Violent conflict

“The empirical association between primary commodity exports and civil war outbreak is neither strong nor robust.”

James Fearon (2005)

Questions when measuring natural resources

Which commodities count?

- Minerals, fuels, all unprocessed "primary products"?

At what stage of the extraction process?

- Reserves, production, exports?

Which value?

- Total proceeds, "unearned" rent component?

Value relative to what?

- The national economy (share of GDP), the national population (per capita)?

Resource abundance vs. resource dependence

Studies finding a resource curse

Have measured **resource abundance** using *primary exports as a share of GDP* (or close variants of it).

Critics

Argue that this measures **resource dependence** — a consequence of the unfavorable outcomes it is supposed to explain:

- Economies lacking a competitive manufacturing sector by default rely heavily on natural resource exports.
- Natural resource exports are unusually resilient in the face of poor governance and violent conflict.

“Natural resources” as mineral and fuel rents

Which commodities count?

- Minerals and fuels (distinguished where necessary).

At what stage of the extraction process?

- Production (reserves difficult to measure/value, but tend to be close to a multiple of “proven reserves,” anyway).

Which value?

- “Unearned” rent component (proceeds minus extraction costs).

Value relative to what?

- Prefer to use per capita, but to give “resource curse” the benefit of the doubt use rents as a share of GDP.

World Bank estimates of resource rents

Coverage

■ Fuels

Oil, natural gas, coal.

■ Metals and minerals

Bauxite, copper, gold, iron ore, lead, nickel, phosphate rock, silver, tin, zinc.

Source

- World Bank, *The Changing Wealth of Nations: Measuring Sustainable Development in the New Millennium*, Washington: World Bank, 2011.

Own estimates of diamond rents

1 Quantity (industrial and gem)

US Geological Service (USGS),
Minerals Yearbook.

2 Price

USGS, *Minerals Yearbook*

(unit value, industrial);

De Beers, Rough Price Index
(estimated, gem).

3 Value

Kimberley Process and various official
and industry sources.

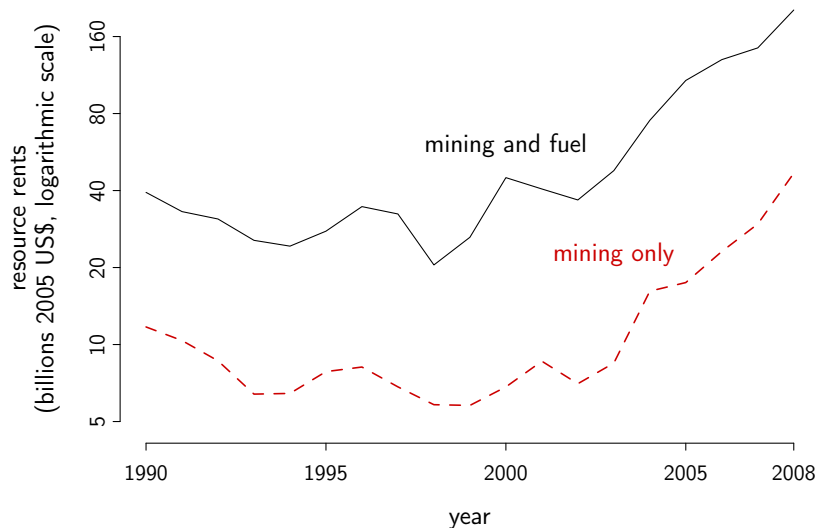
4 Informed guesswork

Diamond rents (per cent of GDP, 1990–2009)

country	rents
Botswana	12.1
Namibia	8.0
Sierra Leone	7.5
Congo (Dem. Rep.)	5.0
Angola	4.4
Liberia	3.8
Central African Rep.	3.7
Lesotho	2.2
Guinea	0.5
South Africa	0.3
Ghana	0.2
Cote d'Ivoire	0.1
Tanzania	0.1
Zimbabwe	0.1

Alternative measures are highly correlated *within* Africa

Resource rents in Africa



Approach for each development indicator

Regional time trends

Does the region as a whole move in the unfavorable direction implied by the resource curse hypothesis?

Cross-national scatterplot

Do resource-rich countries do worse than resource-poor countries?

(And do major oil producers differ from other resource-rich countries?)

Resource wealth and economic stagnation?

The hypothesis

Greater dependence on resource rents leads to slower economic growth.

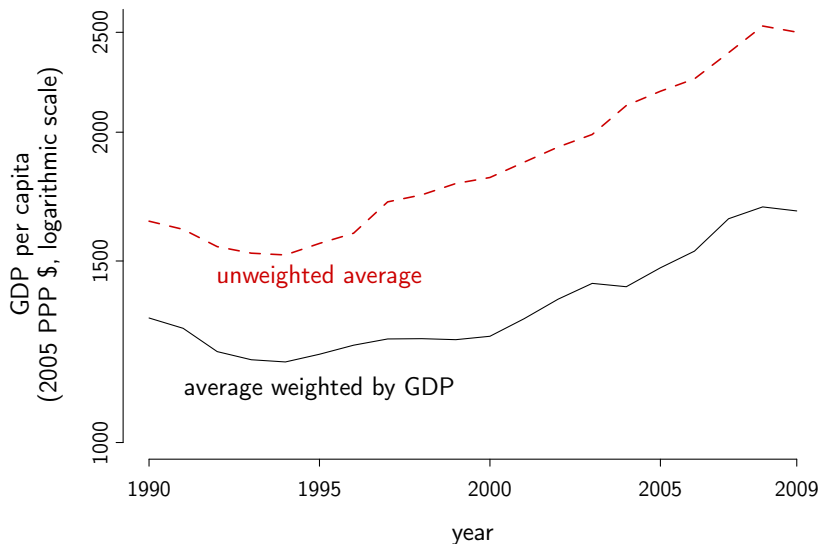
The measure of economic growth

Growth in GDP per capita at purchasing-power parity prices.

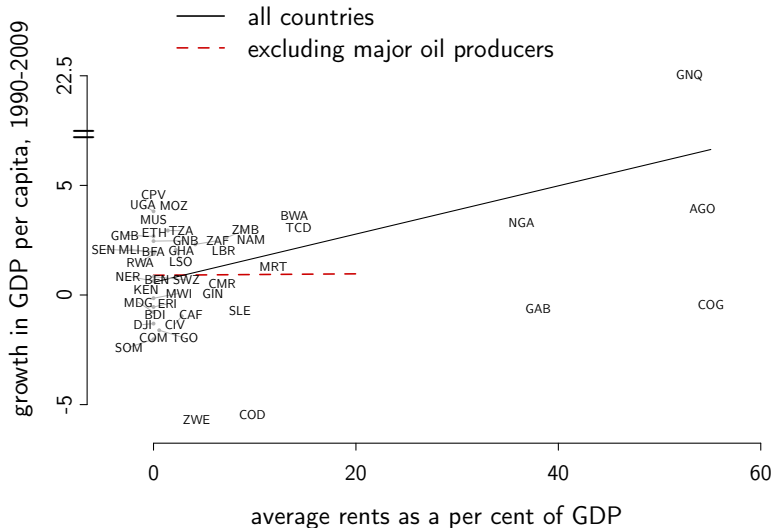
The data source

Alan Heston, Robert Summers and Bettina Aten, *Penn World Table*, Version 7.0, Center for International Comparisons of Production, Income and Prices, University of Pennsylvania, June 2011.

Economic growth in Africa



Resource rents and economic growth in Africa



Resource wealth and authoritarian rule?

The hypothesis

Greater dependence on resource rents leads to a lower probability of democracy.

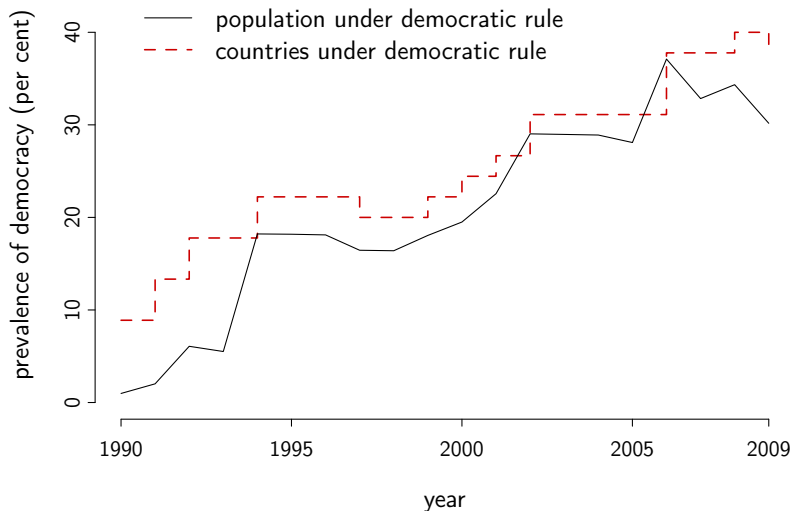
The measure of democracy

Political participation and selection of government leadership is open and competitive, and executive authority is restrained by the rule of law.

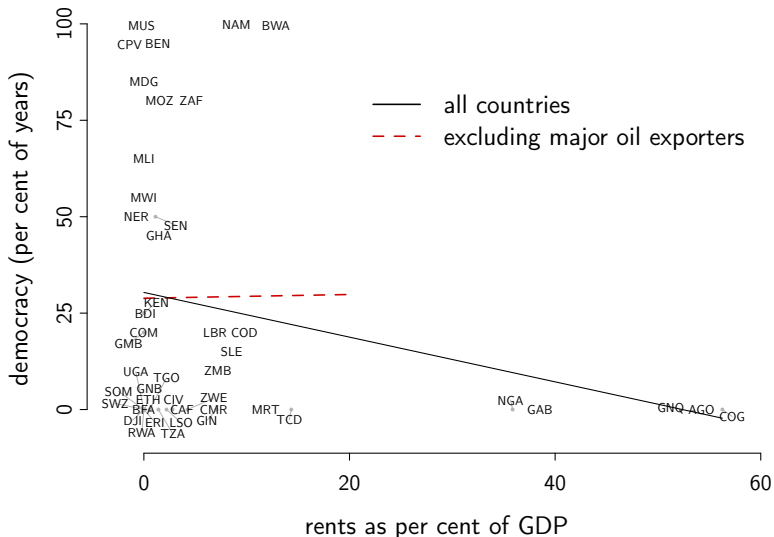
The data source

Polity IV Project, *Political Regime Characteristics and Transitions, 1800–2012*, Vienna, VA: Center for Systemic Peace, 2012. (Own calculations from component indicators.)

Democracy in Africa



Resource rents and democracy in Africa



Resource wealth and violent conflict?

The hypothesis

Greater dependence on resource rents leads to a higher probability of violent conflict.

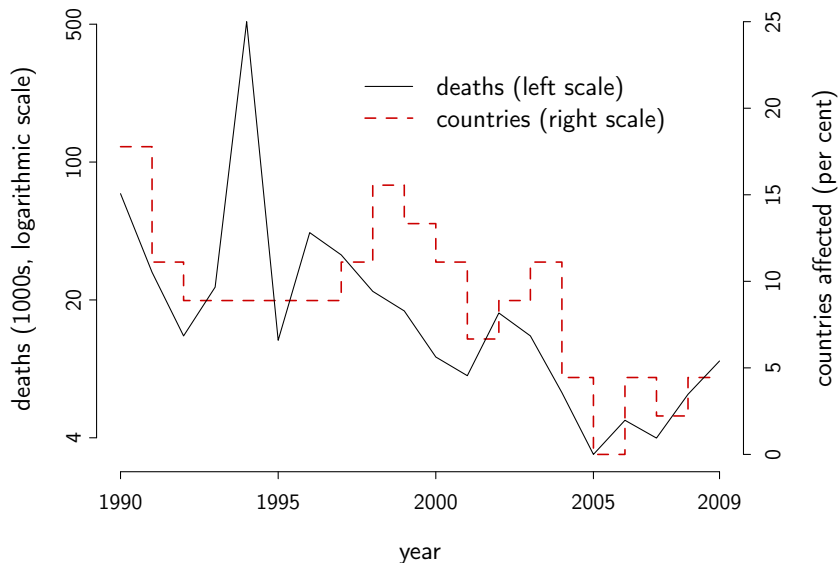
The measure of violent conflict

“The use of armed force by an organized actor against another organized actor or against civilians,” with a threshold of 1000 deaths per year to classify a country as “in conflict.”

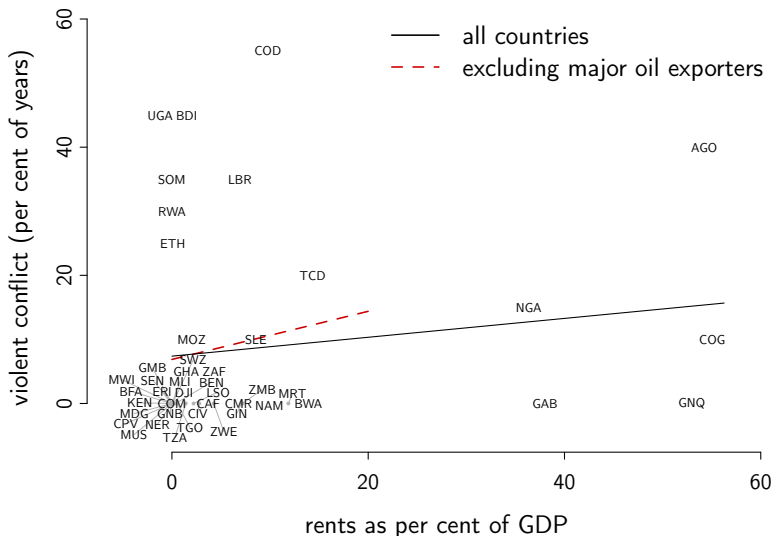
The data source

Uppsala Conflict Data Program, *UCDP Geo-Referenced Event Dataset*, Version 1.1, Department of Peace and Conflict Research, Uppsala University, 2011.

Violent conflict in Africa



Resource rents and violent conflict in Africa



Is Africa's resource-led growth sustainable?

Can growth based on the the depletion of Africa's non-renewable natural assets be sustained beyond the current global commodity boom?

(Hartwick rule: It can, if resource proceeds are converted into fixed capital.)

- To whom are resource rents going?
(Split between private sector (foreign and domestic) and the state?)
- What is being done with the resource rents?
(Split between (unsustainable) consumption and savings/investment?)
- Are environmental consequences adequately internalized as costs of resource extraction?

Answers may vary substantially from country to country.

Do macro-level successes obscure micro-level failures?

Does the weak association between natural resources and development outcomes obscure problems at the sectoral and local levels?

Even if the political system is stable and democratic, and the economy is growing,

- **Sectoral governance**

Micro-level problems may exist in the institutions and policies governing the resource sector.

- **Local governance**

Micro-level problems may exist in the institutions and policies governing the impact of resource extraction in local communities.

Is oil different?

Should major oil-producing countries be pooled with other resource-rich countries in analyzing the challenges of resource-led development?

How they differ

- Their dependence on resource rents far exceeds that of other resource-rich African countries.
- The global geostrategic importance of oil exposes them to unusually strong international pressures (for better and for worse).

How they are similar

- They face qualitatively similar challenges of converting proceeds from depletable natural resources into sustainable development.
- They face qualitatively similar challenges related to sectoral and local governance of resource extraction.

Where has Africa's resource curse gone?

Forty minutes and lots of graphs based on lots of data, and ...

... still haven't really found it.

A few references

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