Fiscal Policy in Commodity Exporting Countries: Stability and Growth

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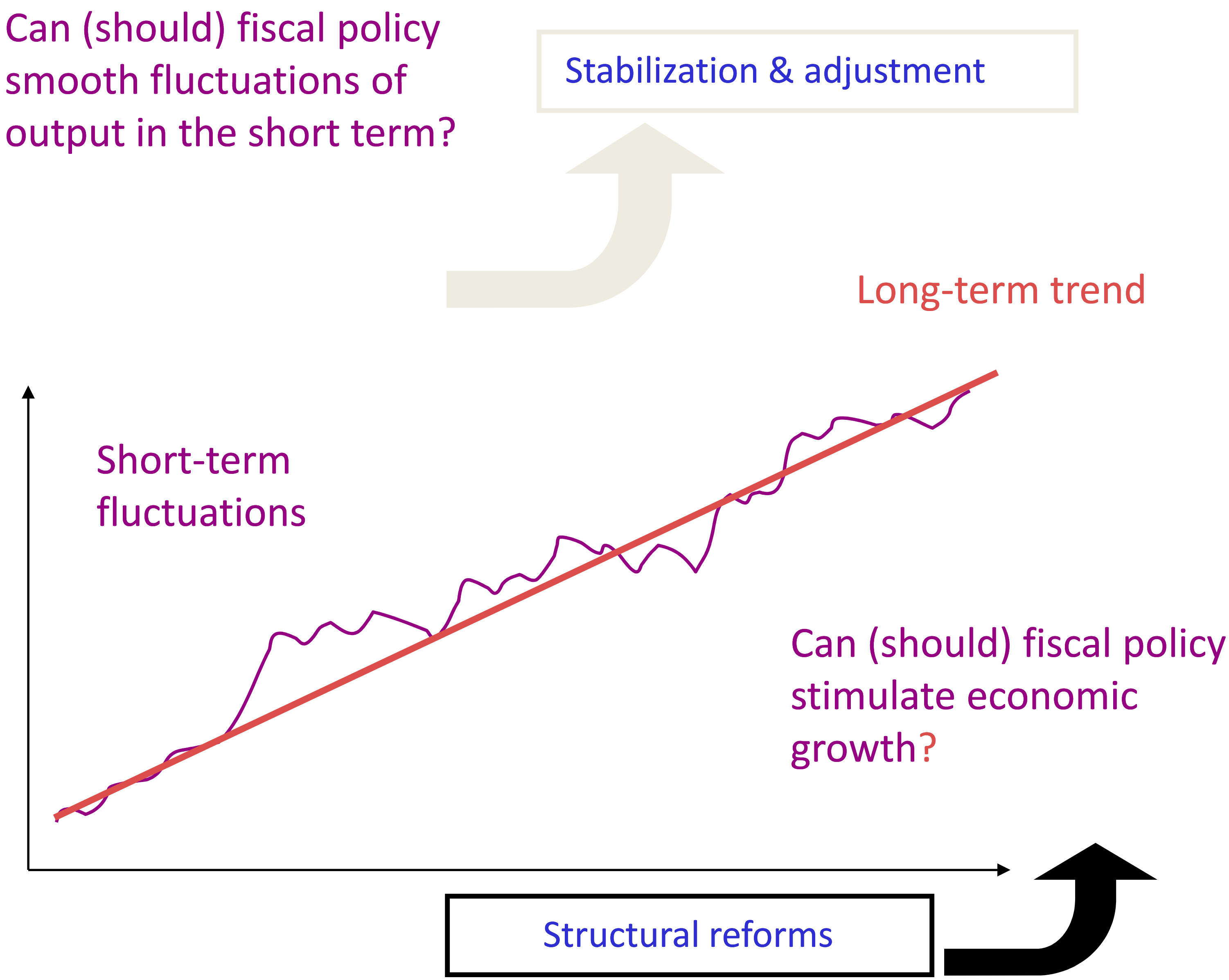
Musgrave's Budget Classification

- Fiscal policy has three functions:
  - Macroeconomic stabilization
  - Allocation
  - Redistribution

Musgrave, 1959, "Voluntary Exchange Theory of Public Finance"


Can (should) fiscal policy smooth fluctuations of output in the short term?
Stabilization & adjustment
Long-term trend
Short-term fluctuations
Can (should) fiscal policy stimulate economic growth?
Structural reforms

Objective of my talk

- Investigate the effects of fiscal policy in commodity exporting countries:
  1. On short-term economic fluctuations
  2. On long-term economic growth

Study on the fiscal policy of exporting countries

- I present systematic evidence from a research study using newly released data on non resource GDP (NR GDP) to separate resource sector activity from non resource activity in over 100 countries

Main Results (1/2)

Short term

- Fiscal policy in commodity exporting countries is procyclical => macroeconomic instability
- Effect of spending on NR GDP on the real exchange rate => loss of price competitiveness

Main Results (2/2)

Long term

- Greater dependence on raw materials has a negative long-term effect on the growth of real per capita NR GDP
- Government spending’s effect on the growth of real per capita NR GDP is negative

Some Theory

Short term

- Fiscal policy must be anticyclical => macroeconomic stabilization
- Dutch Disease

Long term

- Two opposite effects of government spending, Barro (1990, 1991):
  - Providing public goods essential to growth
  - Distortions associated with taxation

What's different about commodity exporters?

Short term

- Exceptional volumes of revenue => confusion between lasting shocks and temporary shocks

Long term

- Natural resource wealth => complicates the question of intergenerational equity

Data

Non Resource GDP

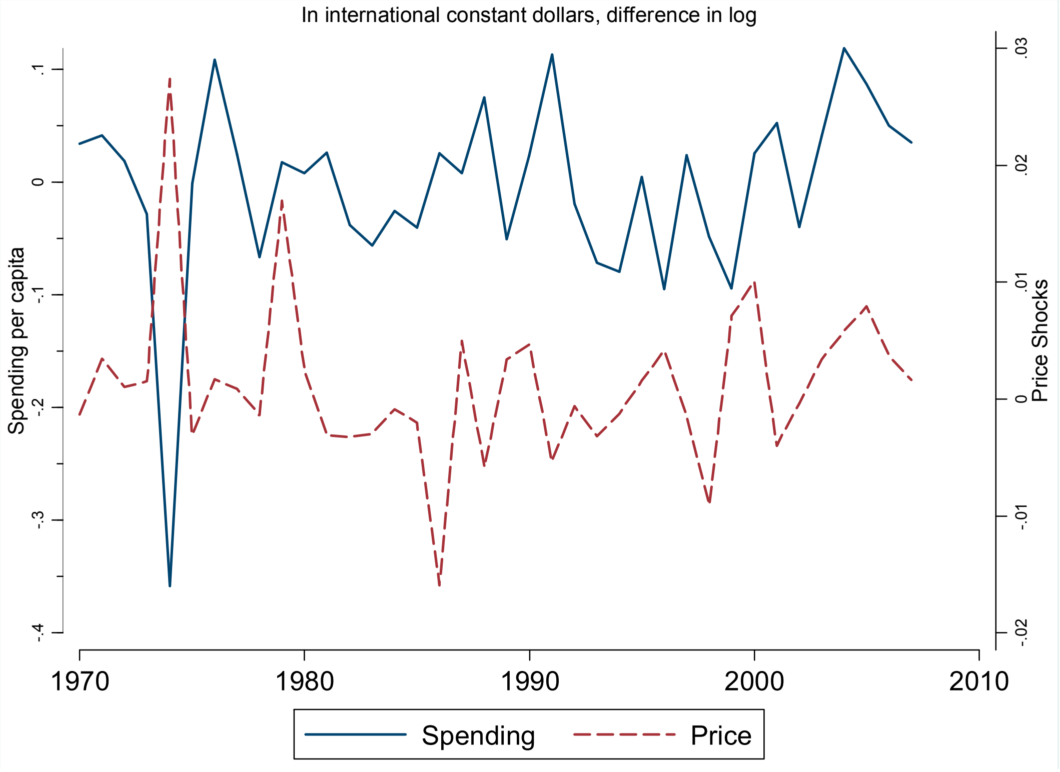
- NR GDP = GDP – (mineral and energy extraction and forest depletion). Source: Hamilton (2010)

Commodity price shock

- Average prices of 21 commodities weighted by export volume

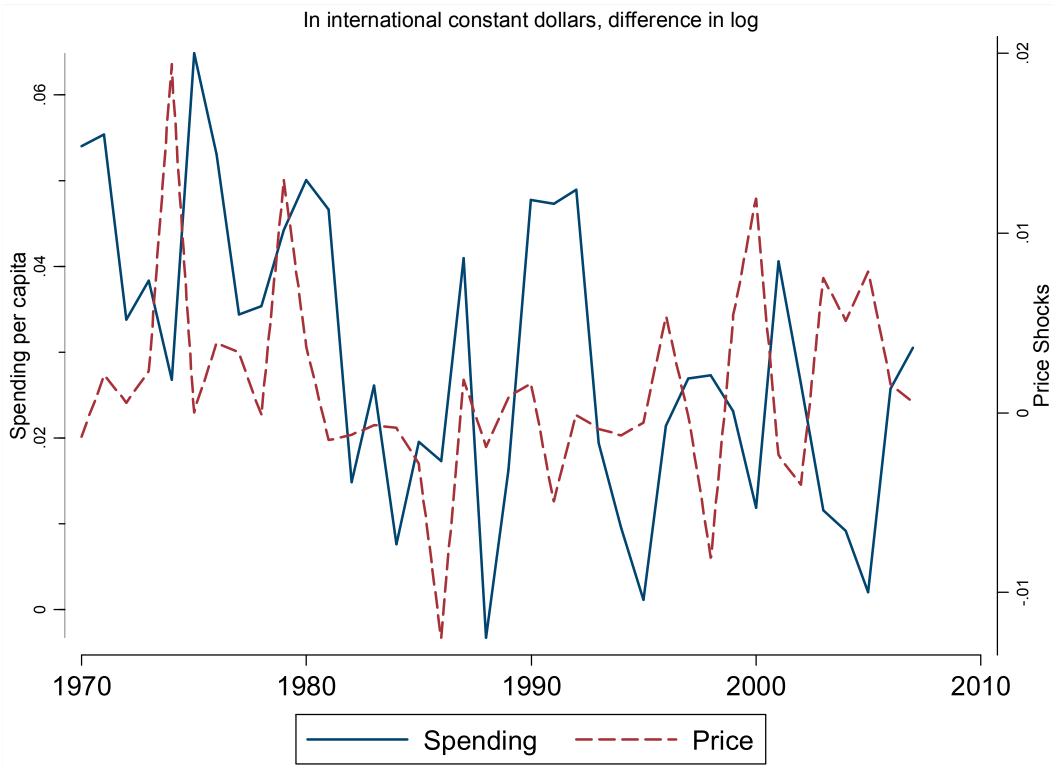
Stability

Venezuela



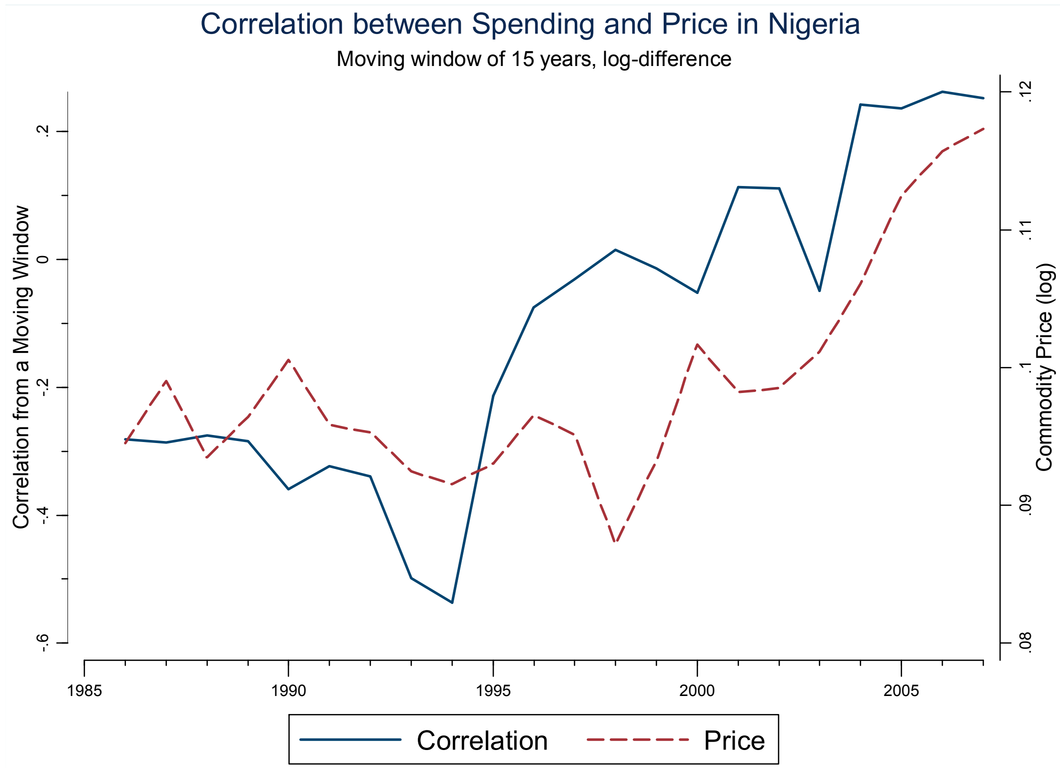
In international constant dollars, difference in log
Spending per capita
.1
0
-.1
-.2
-.3
-.4
Price Shocks
.03
.02
.01
0
-.01
-.02
1970
1980
1990
2000
2010
Spending
Price

Norway

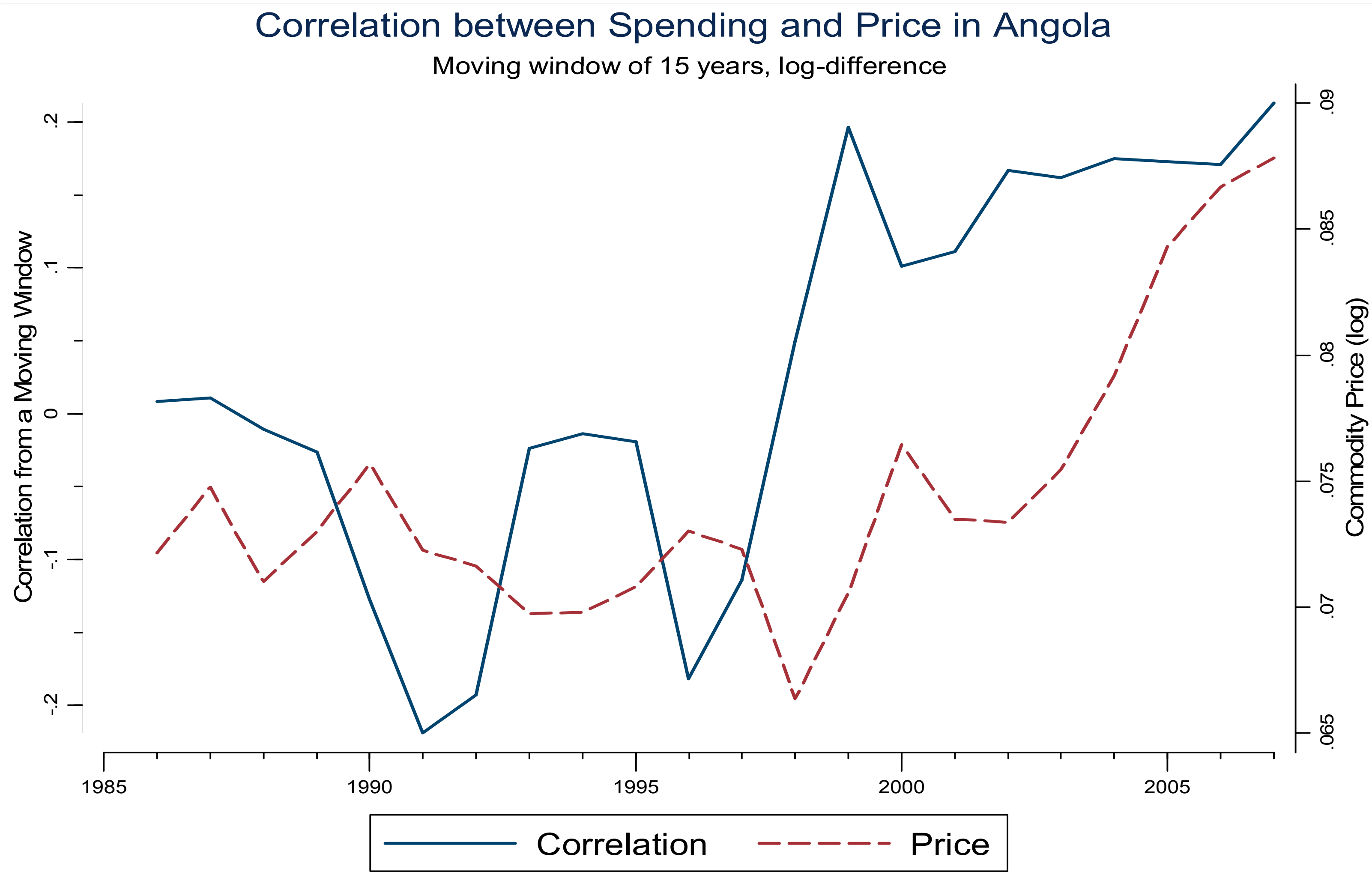


In international constant dollars, difference in log
Spending per capita
0
.02
.04
.06
Price Shocks
-.01
0
.01
.02
1970
1980
1990
2000
2010
Spending
Price

Nigeria


Correlation between Spending and Price in Nigeria
Moving window of 15 years, log-difference
Correlation from a Moving Window
-.6
-.4
-.2
0
.2
Commodity Price (log)
.08
.09
.1
.11
.12
1985
1990
1995
2000
2005
Correlation
Price

Angola



Correlation between Spending and Price in Angola
Moving window of 15 years, log-difference
Correlation from a Moving Window
-.2
-.1
0
.1
.2
Commodity Price (log)
.065
.07
.075
.08
.085
.09
1985
1990
1995
2000
2005
Correlation
Price

Procyclicity of Spending to NR Revenue

- Correlation between change in NR revenue and change in government spending is not different when comparing the 1970s and 2000s.

$\Rightarrow$Procyclicity of fiscal policy

$\Rightarrow$Role of fiscal institutions/rules?

Econometric Study

Use of techniques making it possible to isolate:

- The dynamics of a statistical relationship
- The interdependencies between multiple econometric variables (Non resource GDP, Revenues, Spending, Real Exchange Rate, Current Balance) while simultaneously estimating all relationships (and taking account of specific country traits, VAR Panel)

Results of Econometric Study

- The effects of an increase in commodity revenue lead to:
  - An increase in government spending and in NR GDP
  - An increase in the real effective exchange rate and a deterioration in the NR current balance

Short-Term Policy Implications

- Poor performance of fiscal institutions/rules? Too early to tell? Or should their configuration be reassessed?
- Watch not only the level but also the composition of government spending
- Links between fiscal institutions/rules and the composition of spending => negative effect on growth? (ex. Stability Pact)

Long-Term Economic Growth

Econometric Study

- Use of the cointegration technique to separate the short-term effect from the long-term effect and identify a causal relationship
- Regressions explaining the growth of per capita NR GDP by the share of spending in NR GDP, revenue from raw materials, and the misalignment of the exchange rate

Results of the econometric study

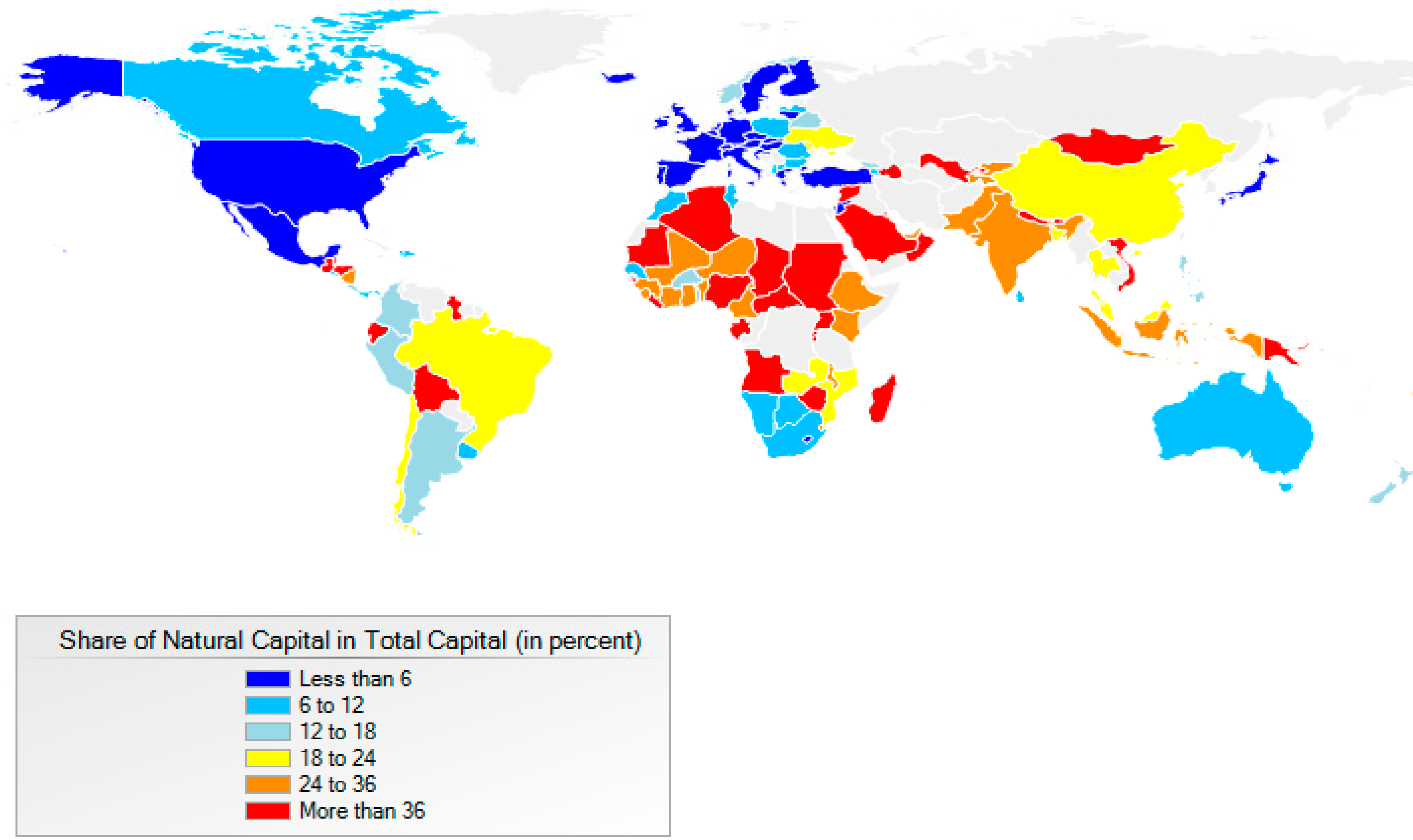
1. Greater dependence on natural resources has a negative effect on the long-term performance of the NR sector
2. An increase in the share of government spending has a negative effect on long-term NR growth
3. Even when controlling for changes in the real exchange rate, 1 and 2 persist

Sacrificing the short term in favor of the long term?

- However, Africa has a low initial capital stock: it should reduce its dependence on commodities by rebalancing its wealth in favor of the stock of physical and social capital

- Need to evaluate the long-term effect of government spending on economic growth to assess its efficiency

Share of Natural Capital Around the World



Why is government spending so inefficient in these countries?

- Negative externality from resource revenue?

=> Large windfalls distort allocative and technical efficiency beyond the Dutch Disease

- Does NR sector taxation generate a positive externality?

Should the NR sector be taxed?

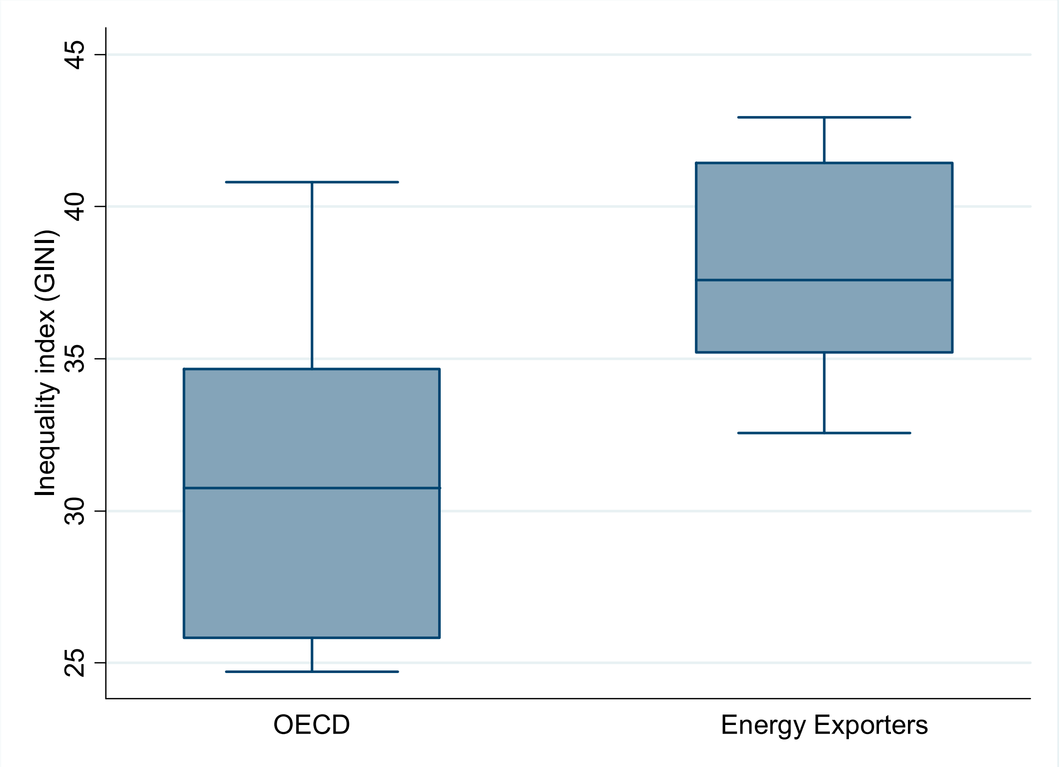
=> Above all, the best way to combat volatility in government revenue by diversifying government income sources

=>Taxation and building the State

Grassroots taxpayer associations exercising monitoring, a control over the efficiency of government spending => Example: Mauritius and the taxation of exports by the British

Appendix

Inequality: OECD vs. Energy Exporters



Musgrave's 3rd Function of Fiscal Policy

- Is redistribution a forgotten objective of fiscal policy in commodity exporting countries? Rich countries but unequal

- A priori, according to the Hartwick rule, it is not a good idea to engage excessively in direct redistribution to the population => In addition, lack of internalization by economic agents

Redistribute Information?

=> Principle of subsidiarity, more decentralization so as to be more attentive to citizen requirements, with a transfer of accountability in tandem with the transfer of revenue?

=> Redistribute in the form of greater information and transparency on the management of revenue, and on the choice of the level and composition of spending. Citizens must take part in the major debates on public action

=> Will make it possible to improve the efficiency of government spending, which in turn will benefit the citizenry