Tax Revenue Outcomes in Resource-Rich Countries: Which Institutions Matter?

Daniel Chachu
Political Economy and Development Chair
University of Zurich
(chachu@ipz.uzh.ch)
Motivation

Source: UNCTAD, 2021
Motivation

- Ongoing debate (e.g. Savoia & Sen, 2021) but preponderance of literature suggests a resource curse

<table>
<thead>
<tr>
<th>Channels</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor Governance/Weak</td>
<td>Mawejje 2019; Knutsen, Kotsadam, Olsen, and Wig, 2017; Caselli and Tesei, 2016; Williams, 2011; Knack, 2009).</td>
</tr>
<tr>
<td>institutions</td>
<td></td>
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<tr>
<td>Excessive Borrowing</td>
<td>Arezki et al., 2017; Bawumia and Halland 2017; Ratti and Vespignani, 2016; Ross 1999</td>
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<tr>
<td>Inequality</td>
<td>Parcero and Papyrakis, 2016; Carmignani, 2013; Fum and Hodler, 2010; Lederman and Maloney 2007.</td>
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<td>Volatility</td>
<td>Mlachila and Ouedraogo, 2017; Kilian and Hicks, 2013; Cuddington and Jerrett, 2008; Davis and Tilton, 2005.</td>
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<tr>
<td>Excess Consumption</td>
<td>Collier 2017; Ross, 1999.</td>
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Source: Based on Chachu, 2021
Motivation

- Thrust of the ‘new’ fiscal resource curse literature (Chachu, 2020; Masi et al. 2020; Klomp and de Haan, 2016; Botlhole et al., 2012; Bornhorst et al., 2009)

- Meanwhile, taxation matters for governance and sustainable development (Tilly, 1980; Kaldor, 1963; Schumpeter, 1918)

- New Institutions school argue a role for institutional quality (Acemoglu et al. 2018; Bates et al. 2013; North 1981)
Research Question

- Does institutional quality constrain the adverse effect of resource dependence on tax revenue mobilization?

- Which type of institutions matter?
Contribution

- Building fiscal capacity (Jeppesen et al. 2023; Besley & Persson, 2014; 2013; 2011)

- Natural resource exploitation and building tax capacity: complements or substitutes? (Chachu, 2020; Bornhorst et al. 2009; Knack, 2009)

- Role of institutions in improving tax revenues (Masi et al., 2020; Ricciuti et al. 2019; Botlhole et al., 2012)?
Approach

- Theoretical discussion
- Panel data regression methods
  - Moderating effect of 12 different measures of institutional quality

Data: About 100 countries (1980-2015)
- UNU-WIDER Government Revenue Database
- World Development Indicators
- Polity IV
- Database on Political Institutions
- International Country Risk Guide
- Country Policy Institutional Assessment*
Theoretical discussion

- Resource-rich countries can follow different paths of tax revenue performance
- Various factors may account for this
- Key role for nature and quality of institutions
- New Institutional school argue of catalytic role of institutions (Acemoglu et al. 2018; Acemoglu et al. 2001)

Source: UNU-WIDER GRD
Theoretical discussion

- Public trust doctrine (Sagarin & Turnipseed, 2012)
  - State determines fiscal regime for mobilizing domestic revenues
  - Executive branch wields ‘power to exploit’ and distribute rents
  - Legislature and judiciary wield the ‘power to constrain’
- Constraints on executive power keeps discretion in check (e.g. discretionary tax incentives)
  - Enforces system of accountability
- Democracy vrs Autocracy: Fear of voter punishment likely to restrain deviation from optimal policy
- Protection of property rights
- Role of social capital

Improvement in investment environment could improve production – tax base
## Measure of institutions

<table>
<thead>
<tr>
<th>Measure</th>
<th>Definition</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polity II</td>
<td>Ability of institutions to guarantee citizens’ right to choose their own leaders</td>
<td>-10 to 10</td>
</tr>
<tr>
<td>Constraint on Executive</td>
<td>Extent to which the decision-making authority of the executive branch of a state is constrained by other state institutions</td>
<td>0 to 10</td>
</tr>
<tr>
<td>Democracy</td>
<td>Measure of institutionalized democracy</td>
<td>0 to 10</td>
</tr>
<tr>
<td>Legislative Index of Electoral Competitiveness (LIEC)</td>
<td>Extent of multi-party participation in legislative elections as well as the composition of the assembly</td>
<td>1 to 7</td>
</tr>
<tr>
<td>Executive Index of Electoral Competitiveness (EIEC)</td>
<td>Extent ruling executive is elected directly by the citizens</td>
<td>1 to 7</td>
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<tr>
<td>Checks and Balances</td>
<td>Combines LIEC and EIEC to assess the level of checks and balances associated with an elected government</td>
<td>1 to 18</td>
</tr>
<tr>
<td>Bureaucratic Quality</td>
<td>Evaluates the potential for continuity in policy regardless of election cycles</td>
<td>0 to 4</td>
</tr>
<tr>
<td>Law and Order</td>
<td>Assesses how impartial the legal system of a country and the extent to which the laws of a country are obeyed</td>
<td>1 to 6</td>
</tr>
<tr>
<td>Investment Profile</td>
<td>Captures risk to foreign investment in a country</td>
<td>0 to 12</td>
</tr>
<tr>
<td>Property rights rule-based governance</td>
<td>Measures security of property and protection of contract rights</td>
<td>1 to 6</td>
</tr>
<tr>
<td>Efficiency of Revenue Mobilization</td>
<td>Overall assessment of the policy and administrative environment for revenue mobilization</td>
<td>1 to 6</td>
</tr>
<tr>
<td>Socioeconomic conditions</td>
<td>Measures a country’s risk or exposure to societal pressure emanating from levels of unemployment, poverty, and consumer confidence.</td>
<td>0 to 12</td>
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</table>
Summary of results

- Evidence validates conditional resource curse hypothesis

- Quality of institutions moderate adverse effect of natural resource dependence on non-resource tax revenues
  - Political institutions trump other types of institutions

- Structural factors as complementary to the role of political institutions
  - Improving quality of institutions alone may not be enough.
Empirical Results – Political Institutions

Figure 1.0
Figure 2.0
Figure 3.0
Figure 4.0
Figure 5.0
Figure 6.0
Empirical Results – Other Institutions

Figure 7.0

Figure 8.0

Figure 9.0

Figure 10

Figure 11

Figure 12
Further checks

- Results show fairly consistent pattern with
  - Accounting for persistence of institutions (medium to long-term effect)
  - Alternative estimation methods
  - Several other robustness checks (dropping outliers, additional control variables, etc.)
Policy Implications for Developing Countries

- Quality of political institutions important for improving tax revenue outcomes
  - While democracy is important, constraints on executive power matters more than just competitive elections (Savoia et al. 2023)

- Complementary factors matter for developing sustainable revenue base.
  - Give attention to structural factors such as sustained growth and trade (Jeppesen et al., 2023; Tagem and Morrisey, 2023))
    
    “…lack of fiscal states in SSA can to a large extent be explained by the absence of economic preconditions” (Jeppesen et al., 2023:359)
  - Informality is an obstacle to improving domestic revenue mobilization