



University of  
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Department of Political Science

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

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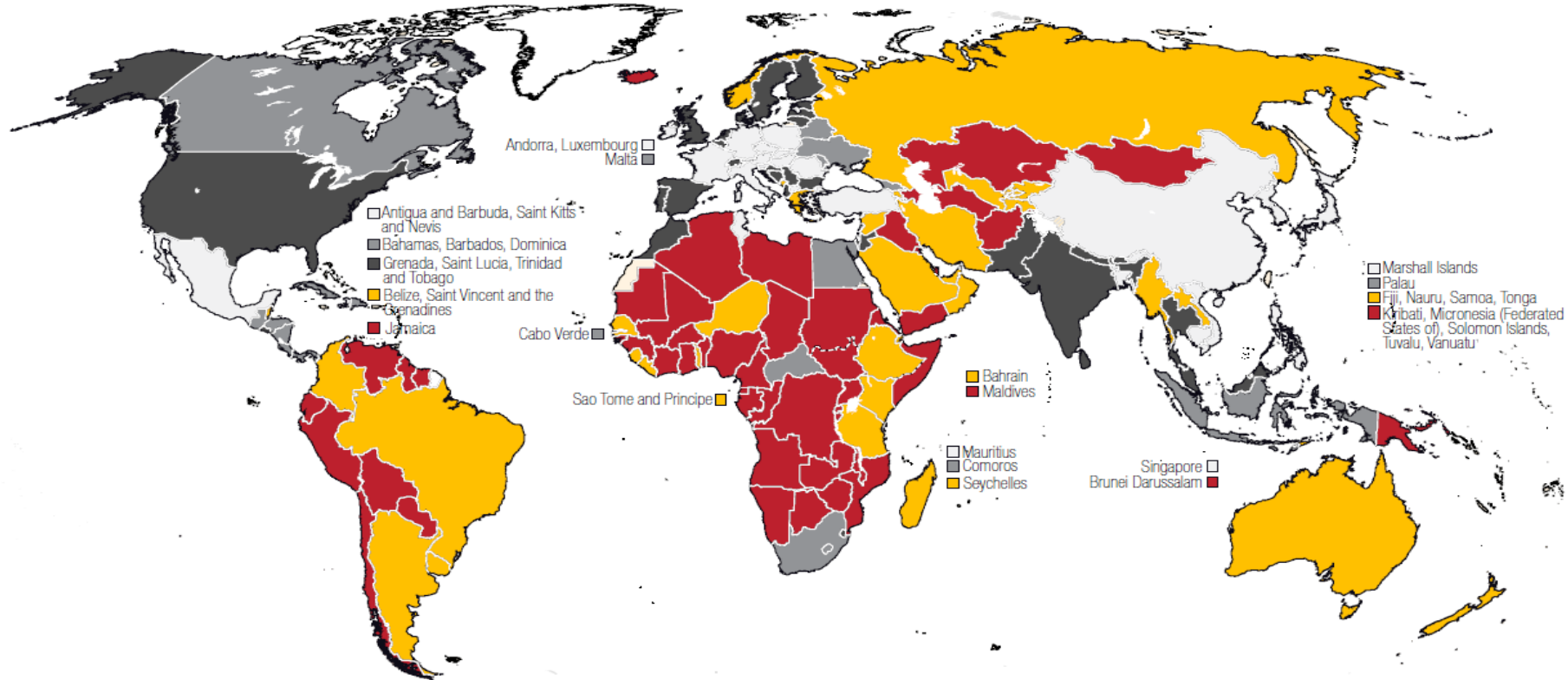
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# Motivation



Source: UNCTAD, 2021

Commodity exports as share of merchandise exports (percentage), 2018–2019

0–20 20–40 40–60 60–80 80–100 Not member State of UNCTAD



## Motivation

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

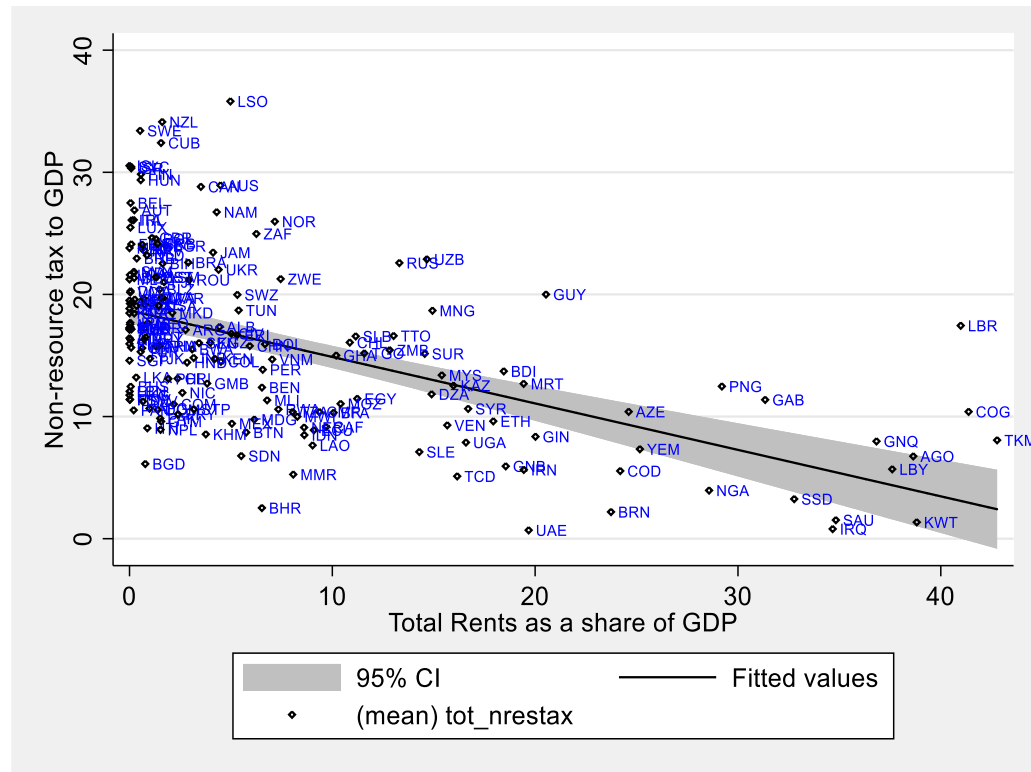
Channels	
<b>Dutch Disease</b>	Van der Ploeg and Venables, 2013; Klein, 2010; Gylfason, 2001.
<b>Poor Governance/Weak institutions</b>	Mawejje 2019; Knutsen, Kotsadam, Olsen, and Wig, 2017; Caselli and Tesei, 2016; Williams, 2011; Knack, 2009).
<b>Conflict</b>	Lessmann and Steinkraus, 2019; Berman, Couttenier, Rohner, and Thoenig, 2017; Collier and Hoeffler, 2009; Humphreys, 2005; Fearon and Laitin, 2003.
<b>Excessive Borrowing</b>	Arezki et al., 2017; Bawumia and Halland 2017; Ratti and Vespignani, 2016; Ross 1999
<b>Inequality</b>	Parcerro and Papyrakis, 2016; Carmignani, 2013; Fum and Hodler, 2010; Lederman and Maloney 2007.
<b>Volatility</b>	Mlachila and Ouedraogo, 2017; Kilian and Hicks, 2013; Cuddington and Jerrett, 2008; Davis and Tilton, 2005.
<b>Excess Consumption</b>	Collier 2017; Ross, 1999.

Source: Based on Chachu, 2021



# Motivation

Figure 1.0



Source: Based UNU-WIDER GRD & WDI

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



## Approach

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

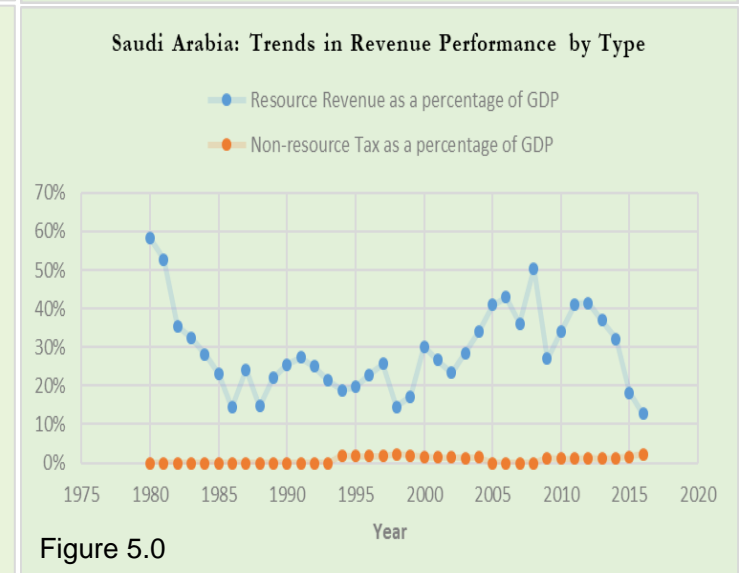
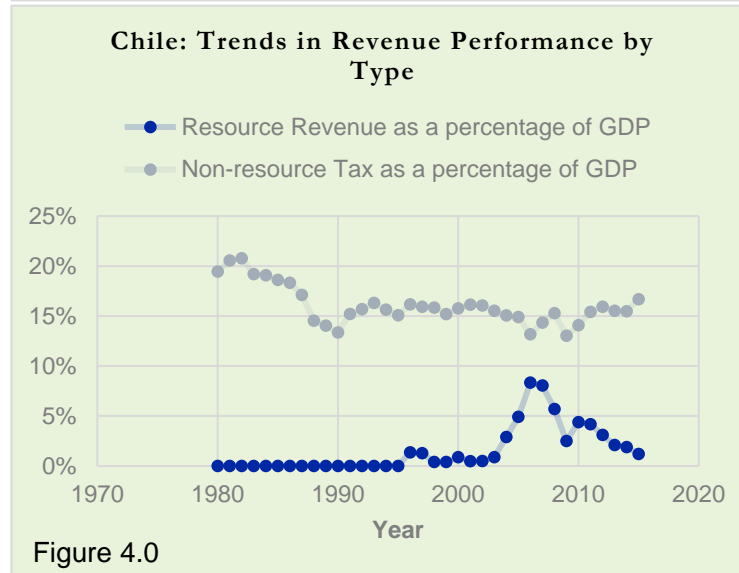
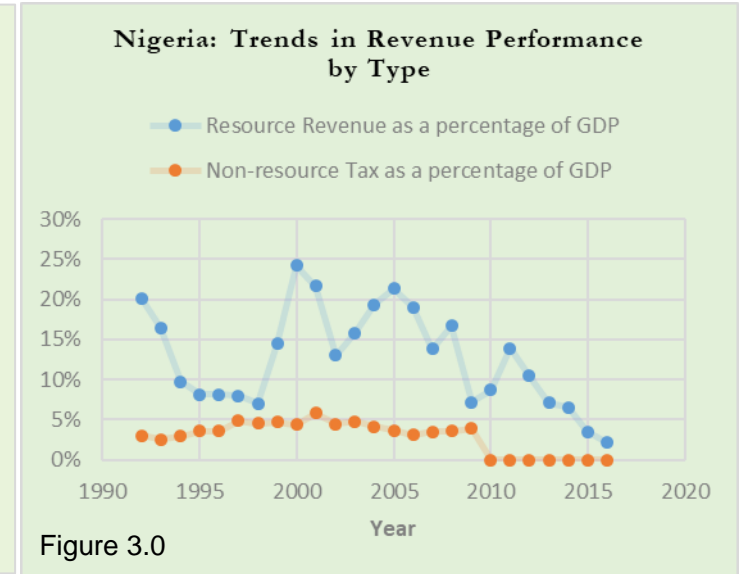
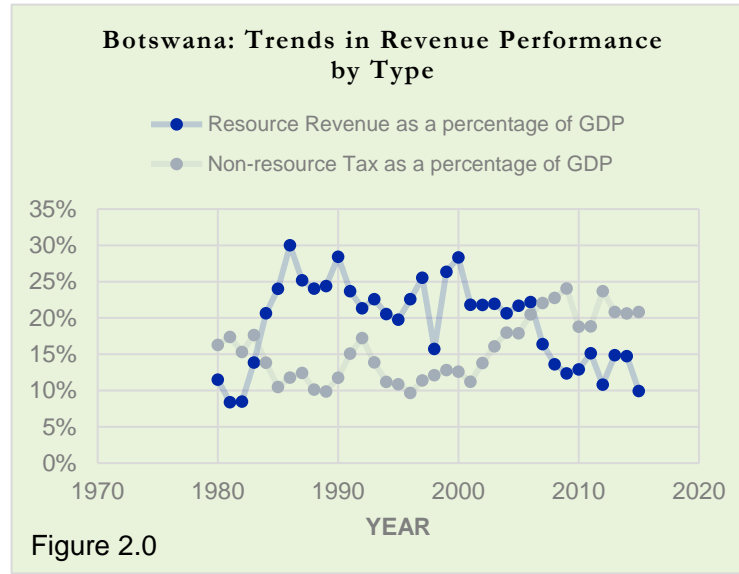
Data: About 100 countries (1980-2015)

- 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)







## 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

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



## 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

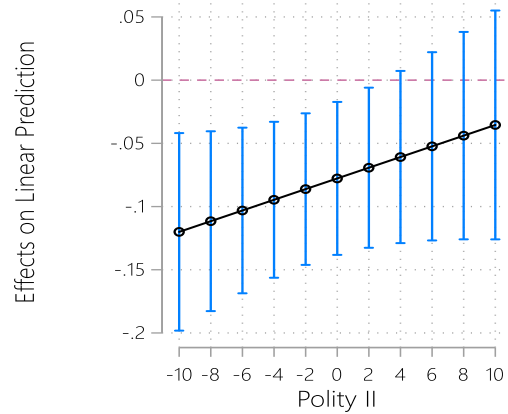


Figure 2.0

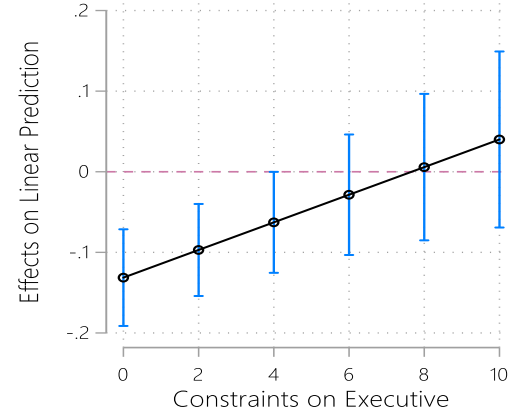


Figure 3.0

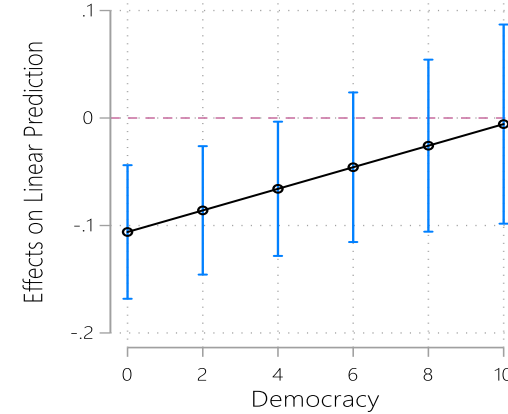


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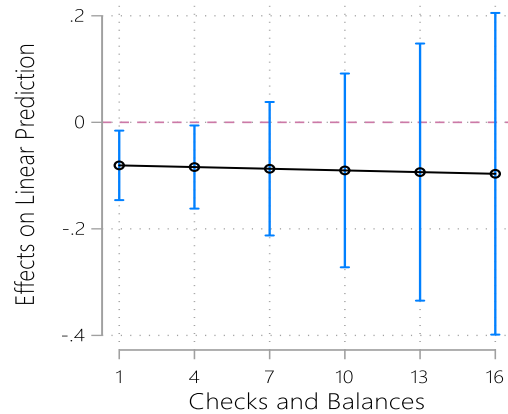


Figure 5.0

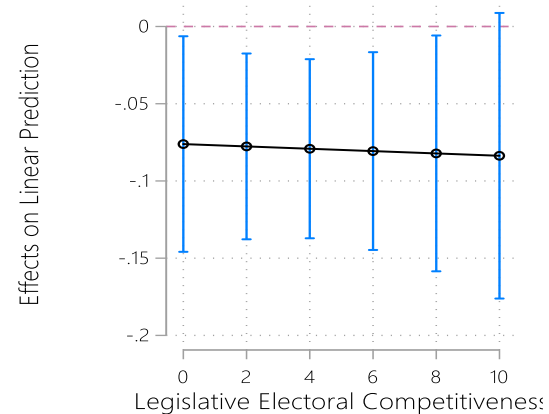
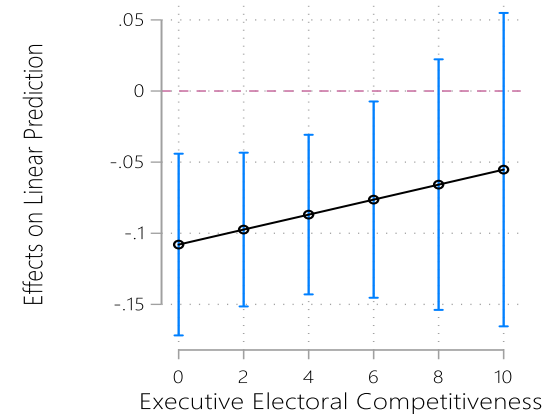


Figure 6.0





# Empirical Results – Other Institutions

Figure 7.0

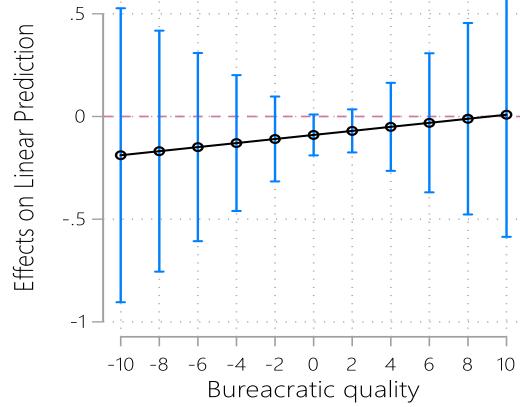


Figure 8.0

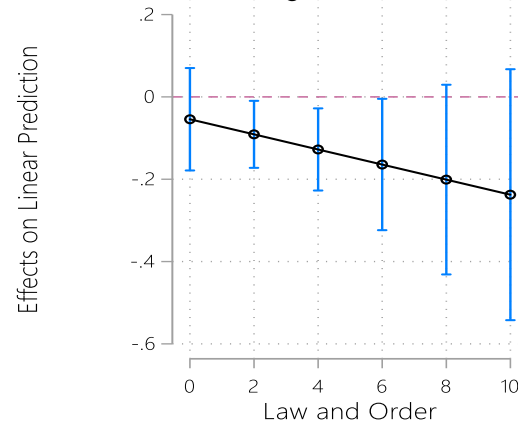


Figure 9.0

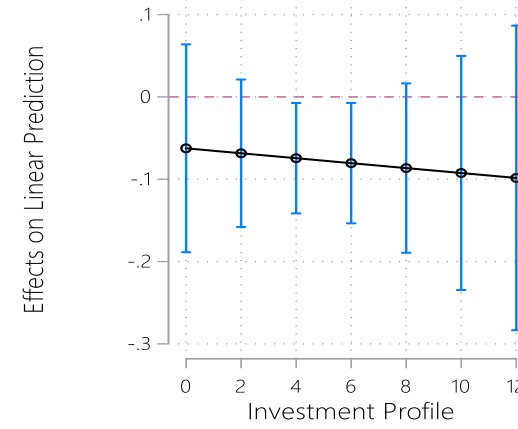


Figure 10

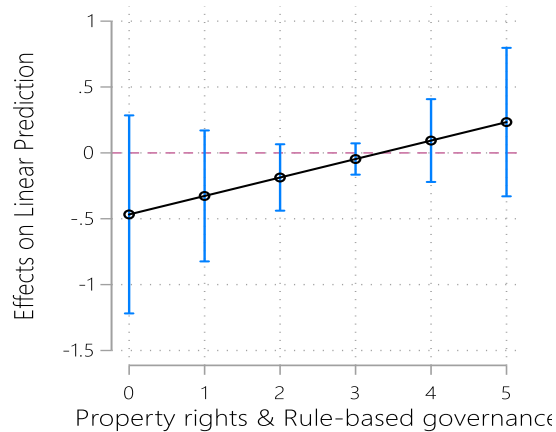


Figure 11

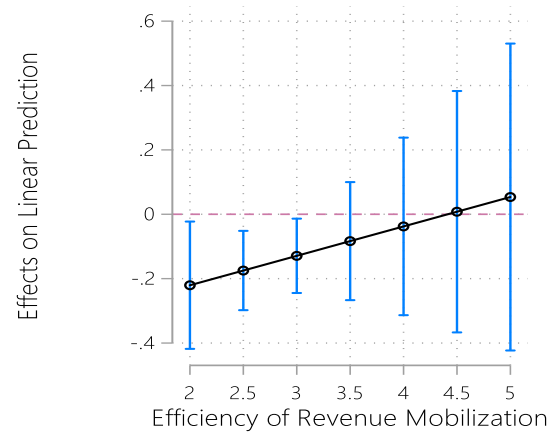
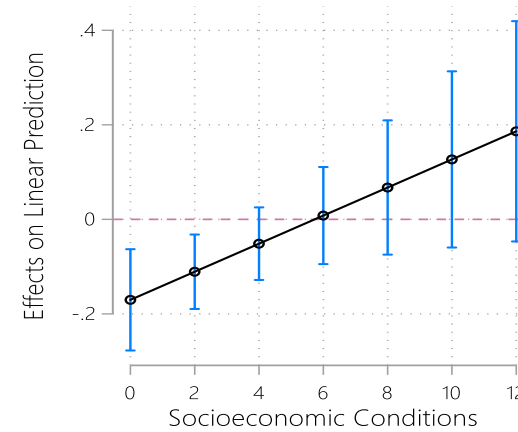


Figure 12





## 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