Detecting Corruption and State Capture

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Policy Research Talk
Introduction

- Corruption is a development challenge
- Difficult to detect
  - especially at the highest levels of government
- Rigorous evidence is a prerequisite for intervention
  - false accusations are harmful
  - identifying mechanisms $\Rightarrow$ reform priorities
This talk: review methods to detect corruption

- How do dictators get rich?
  - does regime change curb capture?

- How do bureaucrats collude?
  - can technology help?

- Do elites capture aid?
  - can transparency initiatives help?
Evidence from our operational engagement

- State capture in Tunisia and Indonesia
  - (ab)use of entry regulation & tax evasion

- Collusion in Madagascar customs
  - manipulation of allocation of declarations
  - differential treatment by inspectors

- Elite capture of World Bank lending
  - disbursements trigger increases in deposits in tax havens
Main messages

- **Grand corruption is prevalent and costly**
  - undermines World Bank effectiveness

- **Systematic corruption is difficult to dislodge**
  - regime change alone does not curb capture
  - IT can help, but is not a panacea
  - transparency alone is not sufficient

- **Combating corruption requires changing incentives**
Mechanisms of State Capture: Evidence from Tunisia

Widespread Graft Benefited Tunisian Leader’s Family, Study Says

All in the family: The Ben Alis and Tunisia

Many Tunisians wonder why it has taken the world so long to figure out the family profited by bending business rules.

Former Tunisia president changed business rules to family’s benefit

World Bank researchers say cronyism still stifles business
What do we know about political connections?

- Politically connections are prevalent and valuable...
  - 2% of publicly listed firms
  - 8% of market capitalization

- .... especially in countries with high levels of corruption, FDI restrictions, and lax conflict of interest laws (Faccio, 2006)
Why are connections valuable?

**Firms**
- Privileged **access to inputs** (Johnson and Mitton, 2003)
- Erection of **regulatory barriers** (Eibl and Malik, 2016)
- **Selective enforcement** of regulation (Fisman and Wang, 2016)
- Privileged access to **import licenses** (Mobarak and Purbasari, 2006)
- **Government contracts** (Cingano and Pinotti, 2013)

**Politicians**
- **job creation** - firms overhire during election years (Bertrand et al., 2018)
- **campaign contributions** (Claessens and Feijen, 2008)
Why Tunisia?

- Celebrated development model:
  - (Pre-) Arab Spring “Success” Story
- Data availability
  - 652 firms confiscated after the Arab Spring
  - tax, social security, and customs transaction data
Connected firms are especially profitable in regulated sectors

Source: Rijkers, Freund and Nucifora (2017)
The premium on being connected is

- larger for big firms
- higher in regulated sectors

Impacts on competition in highly regulated sectors

- Ben Ali MS $\uparrow$ $\implies$ exit $\downarrow$ and concentration $\uparrow$
Connected firms are more likely to evade taxes

Prevalence of tax evasion

Source: Rijkers, Aroui and Baghdadi (2017)
Detecting tariff evasion

- Compare Tunisia’s import records with source countries export’ records (Fisman and Wei, 2004)
  - Calculate Evasion Gaps for product p at time t
    \[ \text{Gap}_{pt} = \text{Exports}_{pt}(\text{partners}) - \text{Imports}_{pt}(\text{Tunisia}) \]
- Large discrepancies are associated with evasion
- which firms evade?
Connected firms are more likely to evade tariffs.

Mean Evasion Gaps by Dominant Importer
Evasion Gap = Log Exports reported by partner - Log Imports reported in Tunisia

Source: Rijkers, Baghdadi and Raballand (2017)
Connected firms are more likely to evade tariffs

![Mean Evasion Gaps by Dominant Importer](image)

Evasion Gap = Log Exports reported by partner - Log Imports reported in Tunisia

Ben Ali firms evaded **1.2 billion USD** in tariffs between 2000 and 2009

Source: Rijkers, Baghdadi and Raballand (2017)
What happened after the Revolution?

- Limited economic reform
  - limited reform of the investment code
- Corruption escalated and democratized
  - tariff evasion democratized and escalated

Post Revolution Change in Evasion Gaps

- Previously Ben Ali dominated: -16.30%, -9.40%
- Other products: 6.20%, 5.80%

Source: Arouri, Baghdadi, and Rijkers (2019)
Regime change does not curb capture: evidence from Indonesia
Suharto connected firms lost market share

The Premium on Being Connected (Market Share)

Source: Hallward-Driemeier, Kochanova and Rijkers (2019)
Competition did not improve durably

![Graph showing Evolution of competition index](image)

- Districts in which Suharto appointed majors remained in power longer have worse development outcomes (Martinez-Bravo et al, 2017)
How does evasion happen in practice? Collusion in Madagascar customs.
Why Madagascar?

- **WB Operational Engagement: Public Sector Performance Project (P150116) (since 2014)**
- Customs account for **48% of government revenue**
- **Data availability**: rich customs transaction data with information on inspector and broker
Do allocations of declarations follow official rules?

- **Formal rules** *minimum workload principle* (random assignment)
  - Probability of a broker matching with a given inspector is equal to her “productivity”

- **Reality** *excess interaction* *(manipulation)*
  - certain inspectors and brokers interact excessively
  - allocation of 10% of declarations is manipulated by the IT system and the port manager
Allocations of declarations do not follow official rules

Distribution of Declarations Across Inspectors
Shares by broker

Source: Rijkers, Fernandes, Raballand, Chalendar, and Mattoo (2019)
Deviant declarations are risky

Source: Rijkers, Fernandes, Raballand, Chalendard, and Mattoo (2019)
Deviant declarations are subject to higher taxes

Source: Rijkers, Fernandes, Raballand, Chalendard, and Mattoo (2019)
Deviant declarations are undervalued

[Graph showing the relationship between excess interaction between broker and inspector and the log of (unit price/median unit price).]

Fitted 95% CI

Source: Rijkers, Fernandes, Raballand, Chalendard, and Mattoo (2019)
Inspectors treat deviant declarations differently

Rijkers, Fernandes, Raballand, Chalendard, and Mattoo (2019)
How (long) was collusion curbed?

- 5 inspectors were sanctioned (or volunteered to retire)
- A 3rd party re-randomized the allocation of declarations to inspectors
  - temporarily eliminated non-random assignment
- IT manipulation resurfaced
  - IT staff enabled “bypassing” of re-randomization
Is World Bank aid diverted?
Do World Bank aid disbursements trigger increases in foreign deposits in havens?

- Havens: offshore banking centers known for secrecy and asset protection
  - e.g. Switzerland, Luxembourg, Cayman Islands

Premise: money flowing to havens belongs to elites

- 50% (80%) of Scandinavian assets in havens belong to the 0.01% (0.1%) wealthiest households (Alstadsaeter et al., 2017)
Data

- **Haven deposits**: quarterly bilateral non-bank deposits from Locational Banking Statistics of the Bank for International Settlements (BIS)
  - confidential: 1990-2010
  - publicly available - selected banking centers only: 1990-2018
- **Aid**: quarterly IDA plus IBRD disbursements
- **Sample**: highly aid dependent countries
  - average annual WB aid > 2% of GDP
  - absorb 10% of IDA & IBRD disbursements
We cannot identify the mechanism(s)

Caveats:

- we don’t know who owns the deposits
- aid is fungible
- elite capture of aid is a possible explanation, but there are others

Your feedback is appreciated!
Haven deposits increase when aid flows in

Percentage change in haven deposits

Quarter relative to disbursement

Source: Andersen, Johannesen and Rijkers (2019)
Non haven deposits do not respond to aid inflows

Source: Andersen, Johannesen and Rijkers (2019)
Aid differentially impacts haven vs non-haven deposits

Source: Andersen, Johannesen and Rijkers (2019)
Leakage increases with aid dependence

- Aggregate leakage in aid-dependent countries: 5%.
- Aid might be most susceptible to capture in countries that need it most

Source: Andersen, Johannesen and Rijkers (2019)
Transparency (post 2009) has not helped

Impact of aid on growth in offshore deposits (public data)

Source: Andersen, Johannesen, and Rijkers (2019)
Conclusion

- Corruption is widespread, systemic, and costly
  - undermines aid effectiveness

- Difficult, but not impossible, to dislodge
  - regime change alone does not curb capture
  - IT solutions can help - but are also susceptible to capture
  - transparency alone does not suffice

- Altering incentives is crucial
References