Diagnosing Corruption and its Costs

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Overview of the webinar

1. IMF’s approach to anticorruption
2. Recent innovations in measuring corruption
3. Policy applications: the Corruption Cost Tracker
4. Q&A (but please post questions throughout)
I. IMF and the Fight Against Corruption
“Good governance is important for countries at all stages of development. . . . Our approach is to concentrate on those aspects of good governance that are most closely related to our surveillance over macroeconomic policies—namely, the transparency of government accounts, the effectiveness of public resource management, and the stability and transparency of the economic and regulatory environment for private sector activity.”

Michel Camdessus
IMF MANAGING DIRECTOR
Address to the United Nations Economic and Social Council
July 2, 1997
Framework for Enhanced Engagement on governance and corruption

- Fiscal governance
- Central bank governance
- Financial sector oversight
- Regulatory framework
- AML & CFT
- Rule of law
Capacity Development—Key Element of the Framework

- Tax administration
- Expenditure oversight
- Fiscal transparency
- Financial sector oversight
- Anti-corruption institution
- Central bank governance
- AML
IMF Governance Diagnostics

Governance diagnostic reports—a key tool in the IMF’s capacity development efforts—are in-depth, country-tailored assessments of corruption and governance vulnerabilities:

(i) The assessments draw heavily on local knowledge and expertise.

(ii) The assessments provide prioritized and sequenced recommendation.

(iii) We expect that the diagnostic reports will be published upon completion (Governance and Anti-Corruption (imf.org))

(iv) More Governance Diagnostics are underway.

Some synergy effects (example):

◆ fight against tax avoidance may require improvement in revenue administration … but also the functioning of the justice system

◆ fight against corruption in procurement systems may require typical fiscal management measures (digitalization and automation of processes), which in turn may require a sound legal basis
Tackling Corruption Vulnerabilities During the COVID-19 Crisis

Governments need to respond swiftly to the emergency with rapid increases in emergency spending.

Intensified pressure on existing fiscal controls and systems, exposing corruption vulnerabilities.

Underline the need for appropriate control and oversight over COVID-19 related spending.
Strategic Orientation in the Use of IMF Emergency Financing

Two governance measures commonly committed to by countries authorities in using IMF emergency financing

- To undertake and publish on the government’s website an audit of crisis-related spending.
  - Usually by the country’s supreme audit institution.
- To publish crisis-related procurement contracts on the government’s website
  - identifying:
    - companies awarded with the contract
    - their beneficial owners
  - recording ex-post validation of delivery of the services and products specified in the contract.
References


IMF, 2020, Progress In Implementing The Framework For Enhanced Fund Engagement On Governance

II. Innovations in measuring corruption
Varieties of corruption measurement

1. Expert scoring
2. Public opinion surveys (perception, experience)
3. Enforcement-based indicators
4. Proxy measures
   - Gap-based indicators
   - Procurement risks
   - Company risks
   - Public employment
   - Personal connections

Public Administration Corruption Index (PACI), 1998-2012
Source: Escresa & Picci, 2015
Our distinct measurement approach

New approach to corruption in PP
- harnessing BIG DATA,
- built on a thorough qualitative understanding,
- 'open-ended'

Indicator characteristics:
- Specific&theory driven
- (near) Real-time
- ‘Objective’/hard description of behavior
- Micro/transaction-level
- Consistent comparisons across countries, organisations, and time
Corruption measurement steps

1. Specific definition of corruption

2. Identify target population and sample

3. Dictionary of corruption technologies

4. Tailoring and validation

Definition: Corruption in Public Procurement

In public procurement, the aim of corruption is to steer the contract to the favored bidder without detection. This is done in a number of ways, including:

- **Avoiding competition** through, e.g., unjustified sole sourcing or direct contract awards.
- **Favoring a certain bidder** by tailoring specifications, sharing inside information, etc.

Conceptualizing public procurement corruption indicators

Data: Countries Covered

Now

Open data: GTI’s database

- Compiling and standardizing official government contracting datasets is the hardest part of our work-made possible by EU, FCDO and other funding
- Over 45+ million public contracts from 38 countries in a standardized format
- Over 6 million government suppliers and 1 million public organisations

Near Future
Risky situations: single bidding & short advertisement

Probability of single bid submitted for contracts compared with the market norm of 48+ days

Source: EU’s Tenders Electronic Daily (TED), Portugal, 2009-2014
Public Procurement Tendering and Supplier Risks

**Tax havens** (Financial Secrecy Index)

→ higher corruption risks (single bidding, Corruption Risk Index)

EU28, 2009-2014

![Graph showing single bidder ratio and CRI for tax and non-tax haven registered companies](image-url)
III. The Corruption Cost Tracker
Dashboard goals

• Identify and quantify corruption risks in public procurement

• Quantify the financial cost of corruption risks

• Inform anti-corruption policies based on over-pricing & corruption risk scenarios
Corruption risk indicators

- Widely applicable indicators selected
- Validity testing in all 5 countries (statistical modelling)
- Some parameters differ country by country, but indicators capture the same underlying risky behaviors
- Simple composite score (CRI) with equal weights for categorical risk indicators (0-1), largely comparable across countries (some indicators are more frequent than others)

<table>
<thead>
<tr>
<th>Indicator group</th>
<th>Red flag</th>
<th>GE</th>
<th>PY</th>
<th>ID</th>
<th>RO</th>
<th>UG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tendering risk</td>
<td>Non-open procedure type</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Tendering risk</td>
<td>Lack of call for tender publication</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Tendering risk</td>
<td>Short bid submission period</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Tendering risk</td>
<td>Length of decision period</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Tendering risk</td>
<td>Single bidder contract</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Supplier risk</td>
<td>Supplier registered in tax haven</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supplier risk</td>
<td>Spending concentration (by organisation, by year)</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>
CRI distributions

Different country risk profiles, in terms of

- Average risk
- Within country variance of risks
- Types of risk components

<table>
<thead>
<tr>
<th>Country</th>
<th>CRI</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>10th Percentile</th>
<th>90th Percentile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uganda</td>
<td>0.52</td>
<td>0.18</td>
<td>0.26</td>
<td>0.75</td>
<td></td>
</tr>
<tr>
<td>Georgia</td>
<td>0.39</td>
<td>0.17</td>
<td>0.17</td>
<td>0.60</td>
<td></td>
</tr>
<tr>
<td>Paraguay</td>
<td>0.31</td>
<td>0.16</td>
<td>0.14</td>
<td>0.44</td>
<td></td>
</tr>
<tr>
<td>Indonesia</td>
<td>0.28</td>
<td>0.13</td>
<td>0.10</td>
<td>0.50</td>
<td></td>
</tr>
<tr>
<td>Romania</td>
<td>0.19</td>
<td>0.22</td>
<td>0.00</td>
<td>0.80</td>
<td></td>
</tr>
</tbody>
</table>

Sources: Country authorities, and authors computations
Corruption risks & overpriced projects

- **Tip of the iceberg**: relative prices at contract award

- **OLS**:

  \[
  \text{Relative contract value} = B_0 + B_1 \times \text{corruption risk score} + B_2 \times \text{institutional and market controls} + \varepsilon
  \]

- **DV**: contract value / reference price (cost overruns are not tracked)
- Controlling for: Year, contract value, main market,Buyer location, buyer type
- Linear prediction: change in relative prices when CRI increases from 0 (no risk) to 1 (maximum risk)
CCT dashboard

1. Landing page: country selection
2. Corruption risks mapping
3. Spending composition: aligned with macro stats!
4. Losses to corruption
5. Savings scenarios

Let’s explore it together now!

https://public.tableau.com/profile/gti1940#!/vizhome/Corruptioninpublicprocurement/Overviewofcountries?publish=yes
Further applications: COVID-related Procurement Spending

Romania, 2015-2021, Ncontract=1 737 248

Source: opentender.eu
Further work: Moving from analytical insights to policy solutions

- Specific problem diagnosis enables targeted interventions
- Identifying interventions which lower corruption risks while simultaneously lifting economic efficiency
- Looking for partnerships

Review of what works in public procurement:
Let us open the floor

Looking forward to your questions!
Further resources

http://www.govtransparencyn.eu/

http://redflags.govtransparencyn.eu/

https://www.researchgate.net/profile/Mihaly_Fazekas/research
### The macro picture: the evidence at a glance

<table>
<thead>
<tr>
<th>Nr.</th>
<th>Intervention name</th>
<th>Countries</th>
<th>Quality of Evidence</th>
<th>Effect Size (% price savings)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>e-procurement: e-notification, e-access, e-attestations &amp; e-submission</td>
<td>EU, Italy, India, Indonesia</td>
<td></td>
<td>1.1-5.3%*</td>
</tr>
<tr>
<td>2</td>
<td>framework agreements</td>
<td>Italy, UK</td>
<td></td>
<td>34-78%**</td>
</tr>
<tr>
<td>3</td>
<td>e-procurement: e-auction &amp; e-evaluation</td>
<td>Russia, Slovakia</td>
<td></td>
<td>5.8-6.7%***</td>
</tr>
<tr>
<td>4</td>
<td>preferential treatment of bidder classes</td>
<td>Italy, Japan, USA</td>
<td></td>
<td>0.10-0.23%</td>
</tr>
<tr>
<td>5</td>
<td>award mechanism and auction design</td>
<td>Brazil, EU, Italy</td>
<td></td>
<td>7-8%*</td>
</tr>
<tr>
<td>7</td>
<td>civil society supervision of contract execution</td>
<td>Indonesia</td>
<td></td>
<td>0%</td>
</tr>
<tr>
<td>8</td>
<td>centralization of procurement functions and collaborative procurement</td>
<td>Australia, EU, Italy, UK</td>
<td></td>
<td>34-78%</td>
</tr>
<tr>
<td>9</td>
<td>transparency and watchdog portals</td>
<td>Georgia, Slovakia</td>
<td></td>
<td>n.a.</td>
</tr>
<tr>
<td>10</td>
<td>rule-bound or discretionary decision making</td>
<td>China, France, Germany, Italy, Nigeria, US</td>
<td></td>
<td>25%</td>
</tr>
<tr>
<td>11</td>
<td>professionalization and capacity development</td>
<td></td>
<td></td>
<td>n.a.</td>
</tr>
<tr>
<td>12</td>
<td>audits and supervisions</td>
<td>Argentine, EU, Indonesia</td>
<td></td>
<td>11%</td>
</tr>
<tr>
<td>13</td>
<td>performance pay and incentives</td>
<td></td>
<td></td>
<td>n.a.</td>
</tr>
</tbody>
</table>

**Interventions targeting specific procurement phases**

**Interventions targeting the cycle**

*Source: Fasekas and Blum (2021)*
Further analytical work: nonlinear and heterogeneous price effects

Uganda, 2015-2020, Ncontract=41 394
Back-up slides
Back-up slides
Back-up slides