



Government
Transparency
Institute

Diagnosing Corruption and its Costs

JULY 9, 2021

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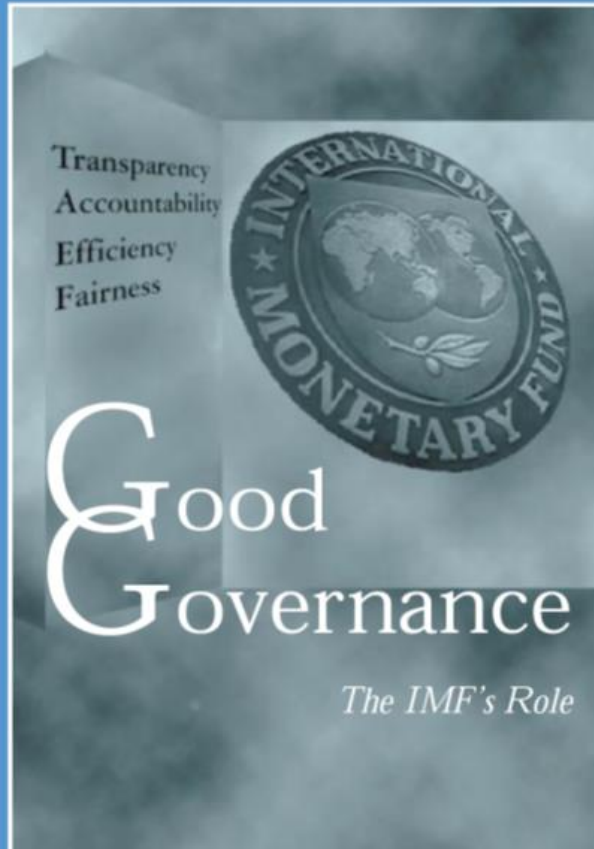
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Transparency Institute

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)

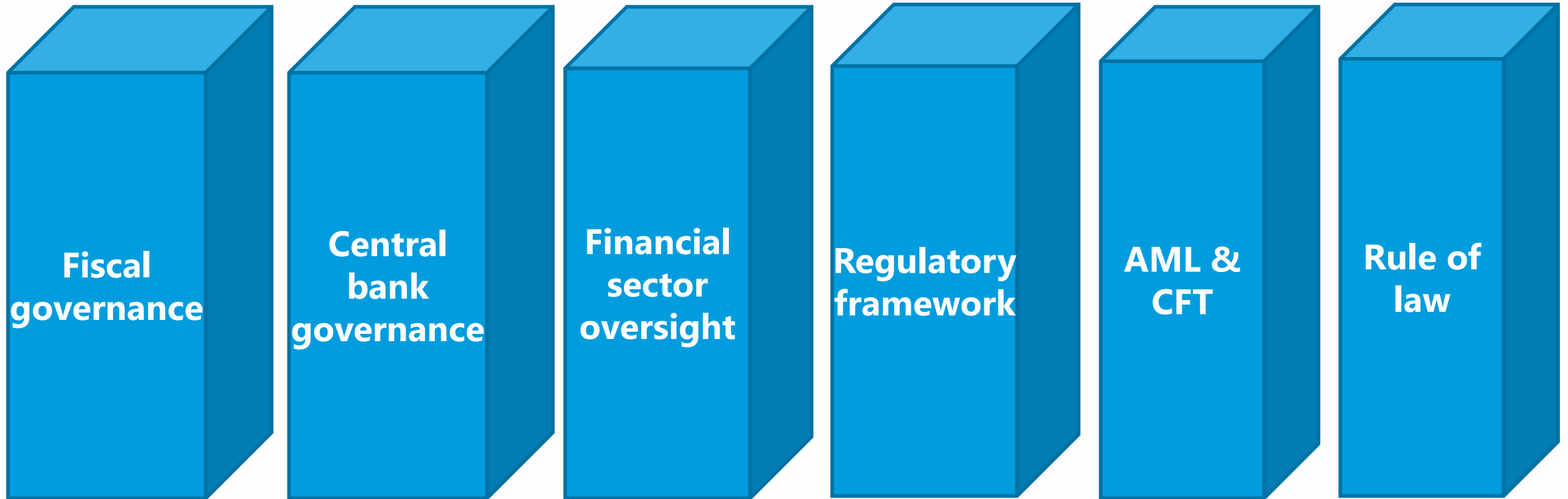
I. IMF and the Fight Against Corruption



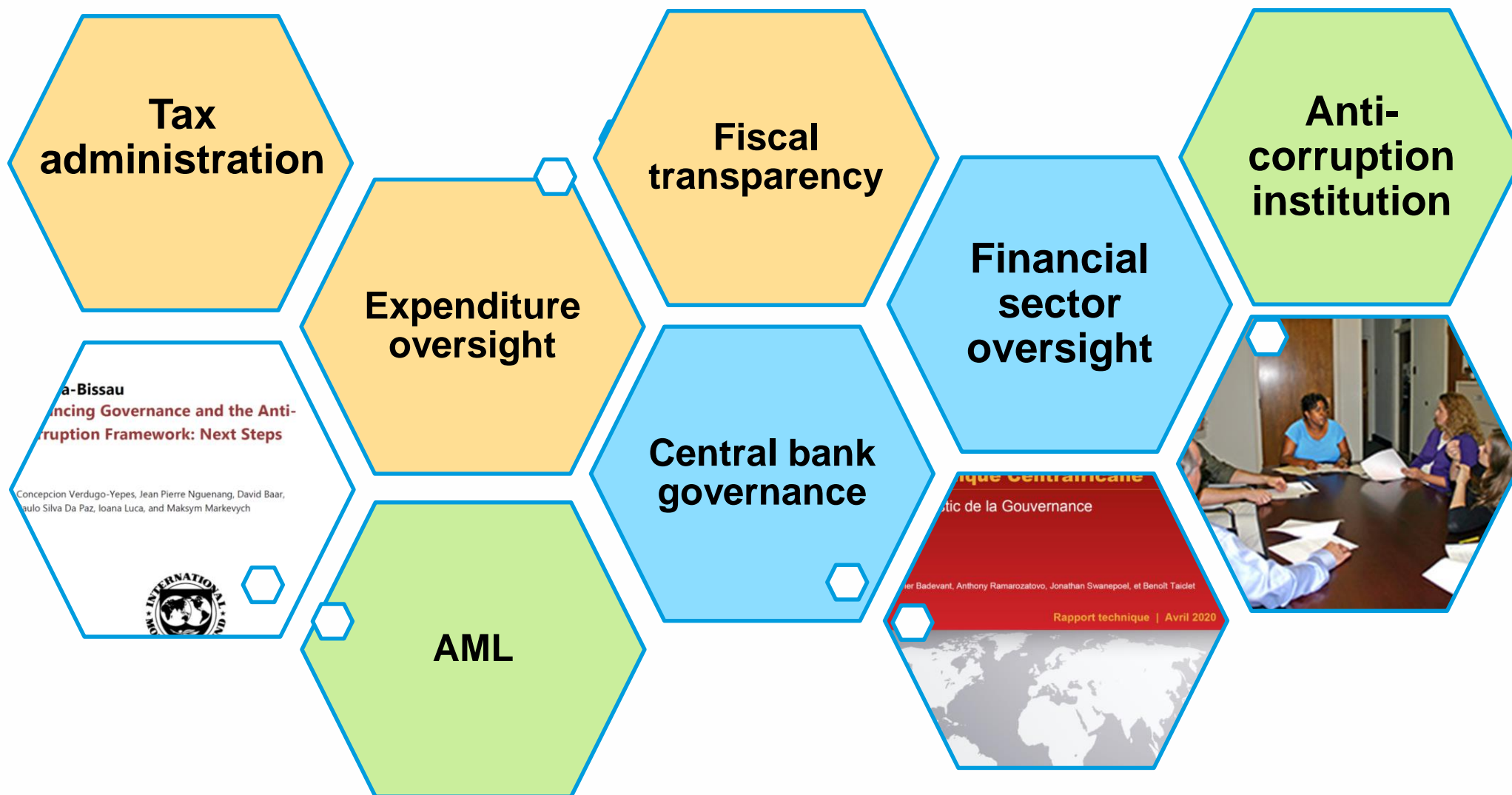
“Good governance is important for countries at all stages of development. . . . Our approach is to concentrate on those aspects of good governance that are most closely related to our surveillance over macroeconomic policies—namely, the transparency of government accounts, the effectiveness of public 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



Capacity Development—Key Element of the Framework



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 \(imf.org\)](https://www.imf.org/publications/governance-and-anti-corruption))
- (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 COVID19 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, 2018, Review of the 1997 Guidance Note on Governance – a Proposed Framework for Enhanced Fund Engagement

<https://www.imf.org/en/Publications/Policy-Papers/Issues/2018/04/20/pp030918-review-of-1997-guidance-note-on-governance>

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

<https://www.imf.org/en/Publications/Policy-Papers/Issues/2020/07/15/Progress-In-Implementing-The-Framework-For-Enhanced-Fund-Engagement-On-Governance-49576>

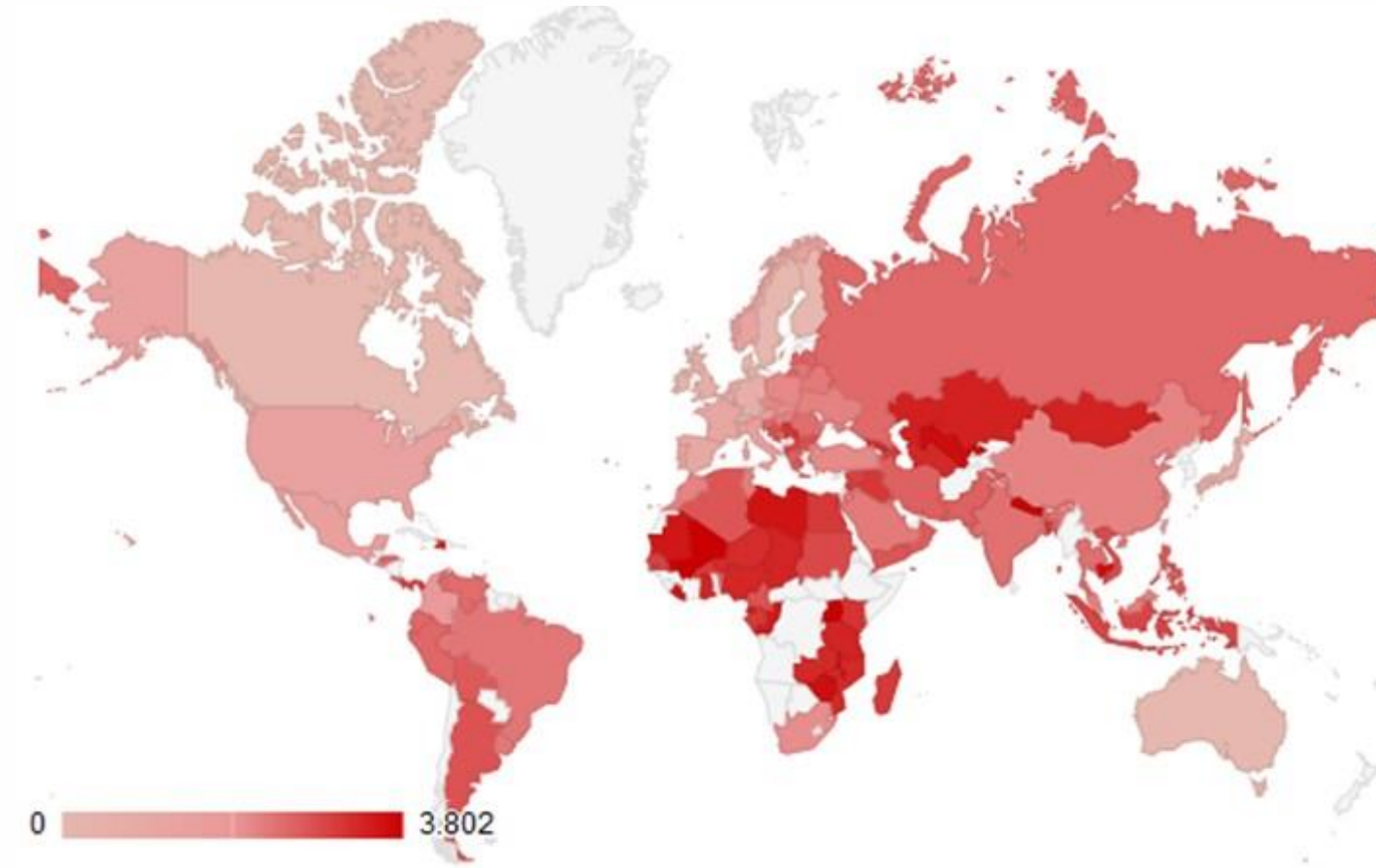
II. Innovations in measuring corruption

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

Source: Mungiu-Pippidi, Alina & Fazekas, Mihály (2020), How to define and measure corruption. In Alina Mungiu-Pippidi & Paul M. Heywood (eds.) A Research Agenda for Studies of Corruption. Ch. 2. Edward Elgar, Cheltenham.

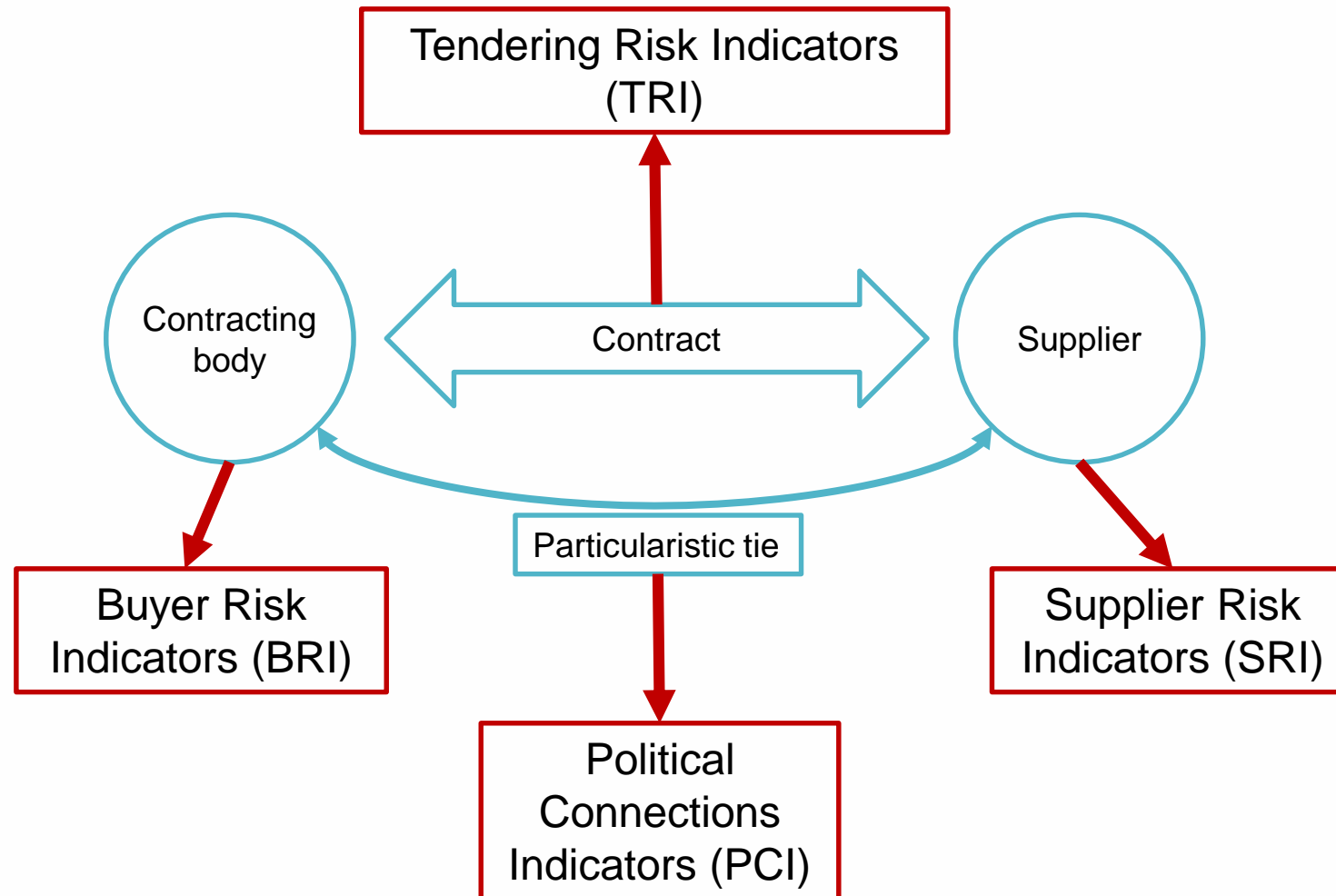
Definition: Corruption in Public Procurement

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.

See: World Bank Integrity Presidency (2009) Fraud and Corruption. Awareness Handbook, World Bank, Washington DC. pp. 7.

Conceptualizing public procurement corruption indicators



Source: Mihály Fazekas, Luciana Cingolani, & Bence Tóth (2018), *Innovations in Objectively Measuring Corruption in Public Procurement*. In Helmut K. Anheier, Matthias Haber, and Mark A. Kayser (eds.) *Governance Indicators. Approaches, Progress, Promise*. Ch. 7. Oxford University Press, Oxford.

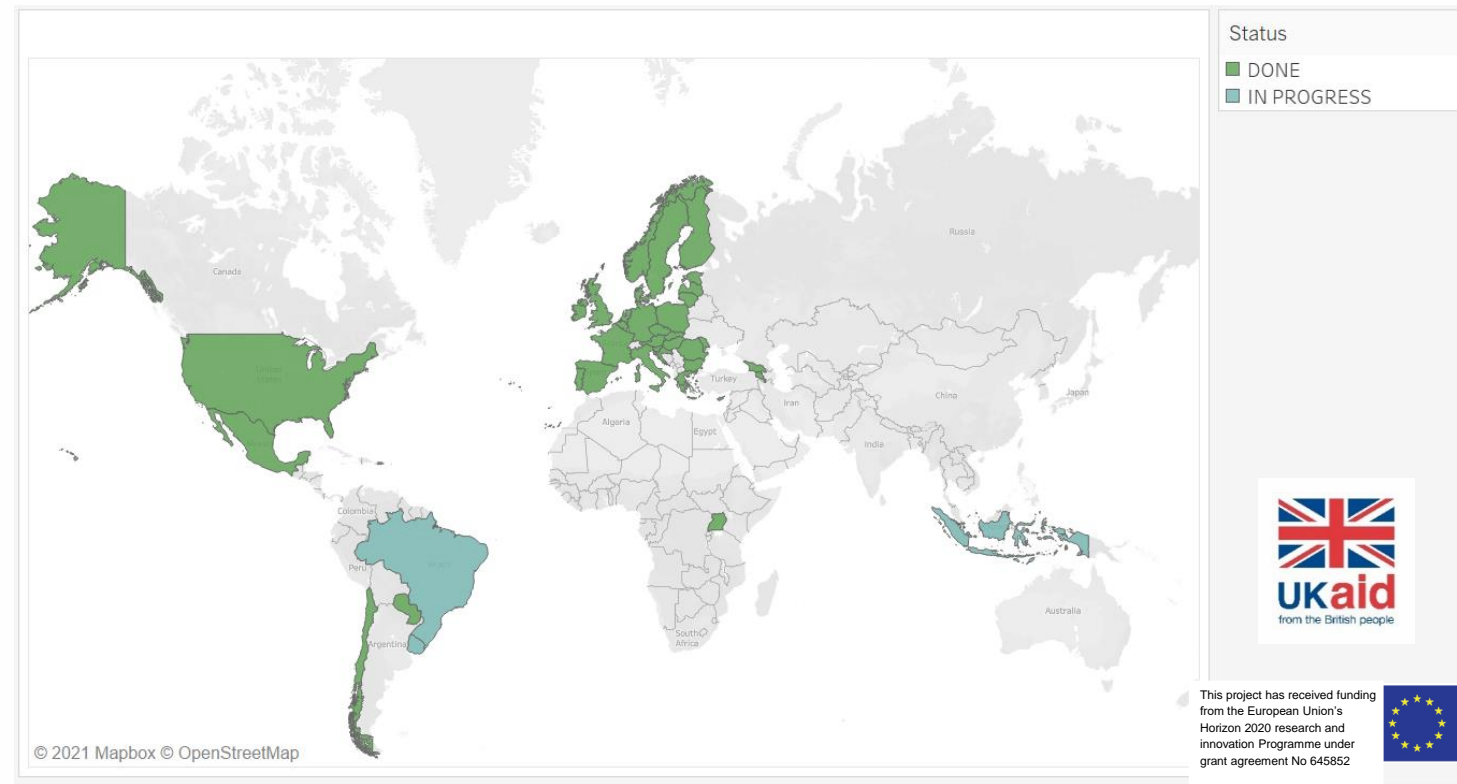
Data: Countries Covered

Now

Open data: GTI's database

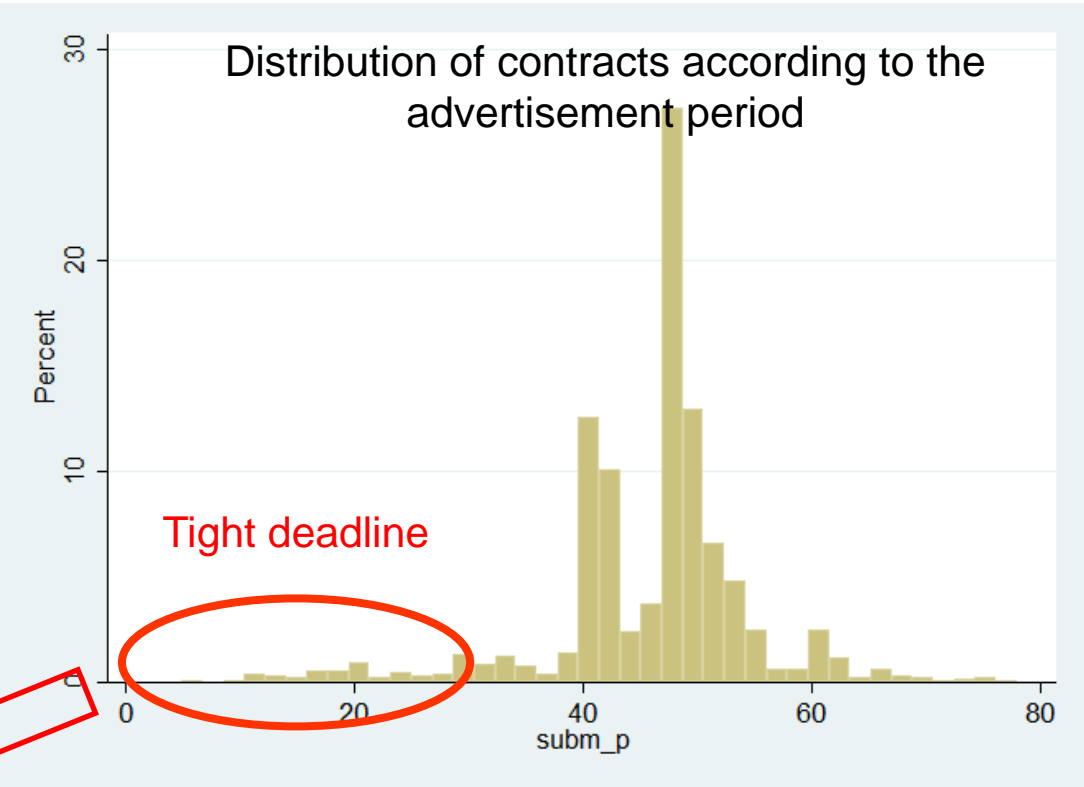
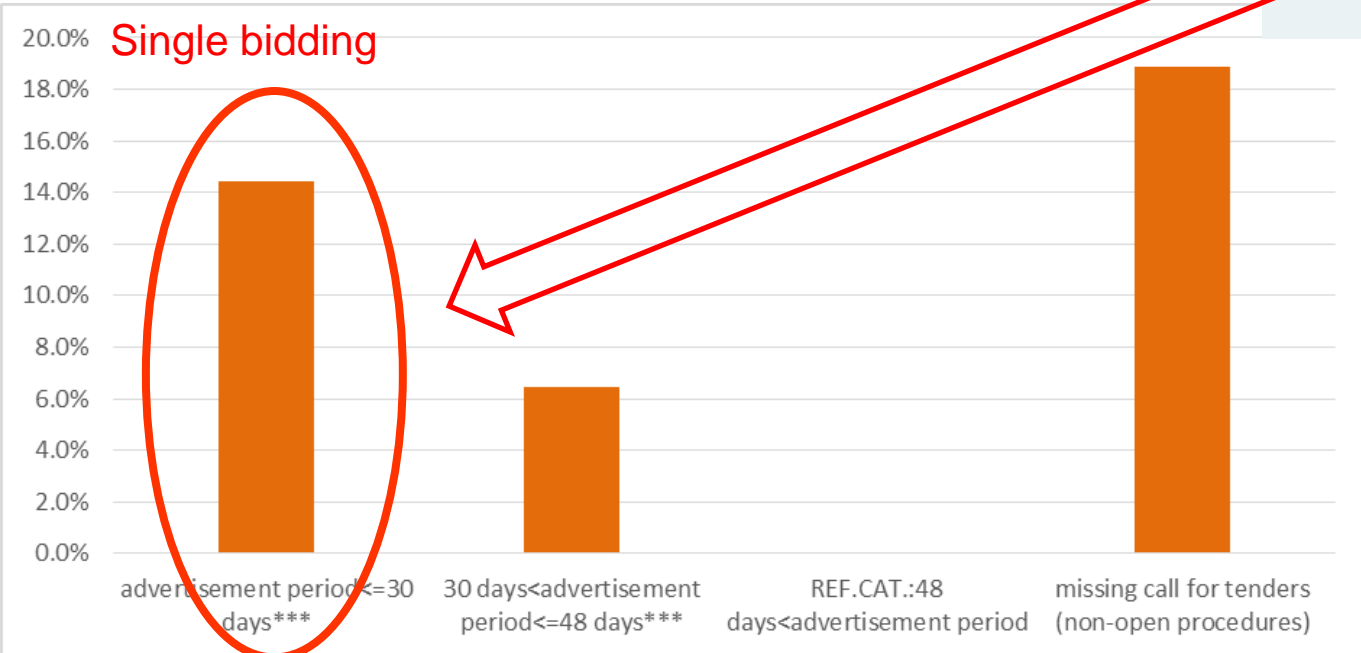
- Compiling and standardizing official government contracting datasets is the hardest part of our work-made possible by EU, FCDO and other funding
- Over 45+ million public contracts from **38 countries** in a standardized format
- Over 6 million government suppliers and 1 million public organisations

Near Future



Risky situations: single bidding & short advertisement

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



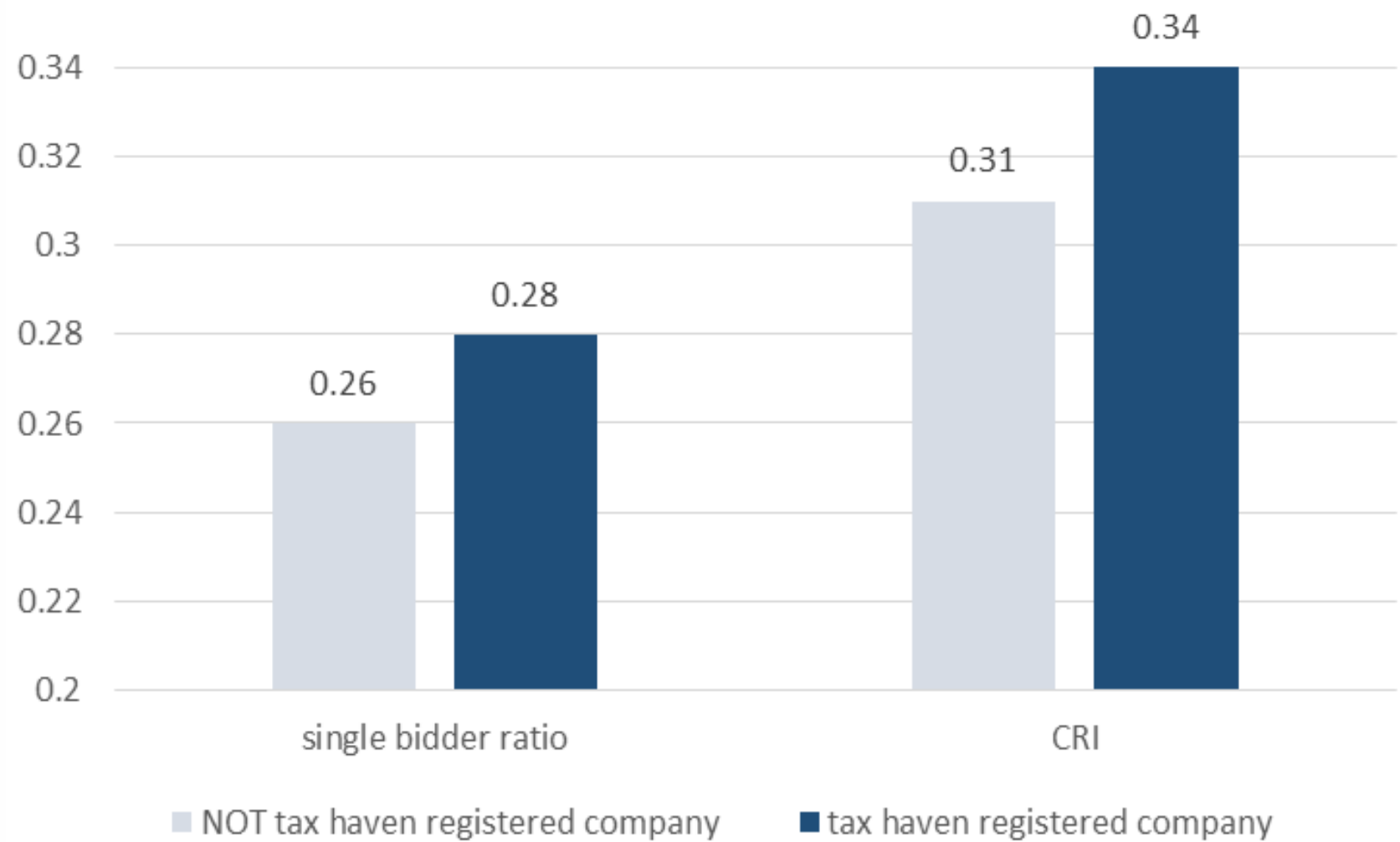
Source: EU's Tenders
Electronic Daily (TED),
Portugal , 2009-2014

Public Procurement Tendering and Supplier Risks

Tax havens (Financial Secrecy Index)

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

EU28, 2009-2014



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

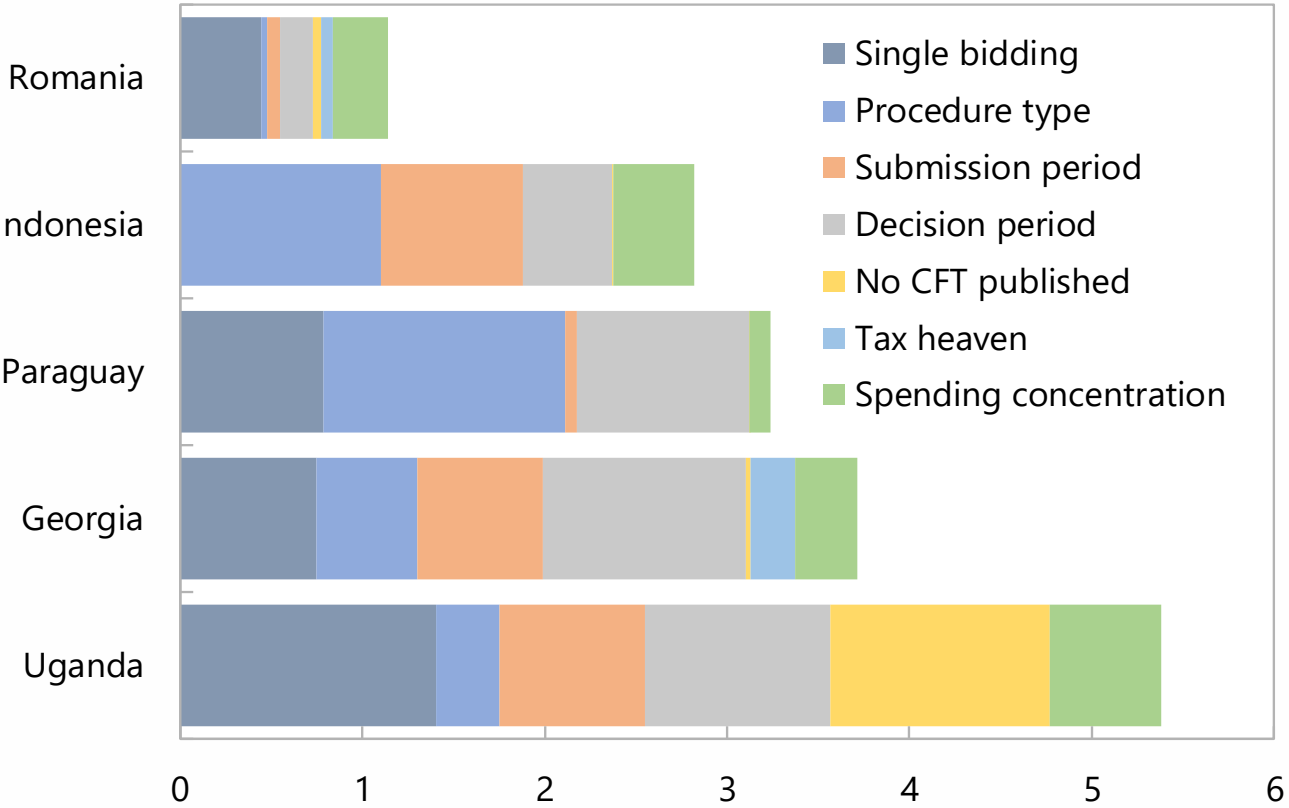
- Widely applicable indicators selected
- Validity testing in all 5 countries (statistical modelling)
- Some parameters differ country by country, but indicators capture the same underlying risky behaviors
- Simple composite score (CRI) with equal weights for categorical risk indicators (0-1), largely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

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

CRI distributions

CRI	Mean	Standard deviation	10 th Percentile	90 th Percentile
Uganda	0.52	0.18	0.26	0.75
Georgia	0.39	0.17	0.17	0.60
Paraguay	0.31	0.16	0.14	0.44
Indonesia	0.28	0.13	0.10	0.50
Romania	0.19	0.22	0.00	0.80

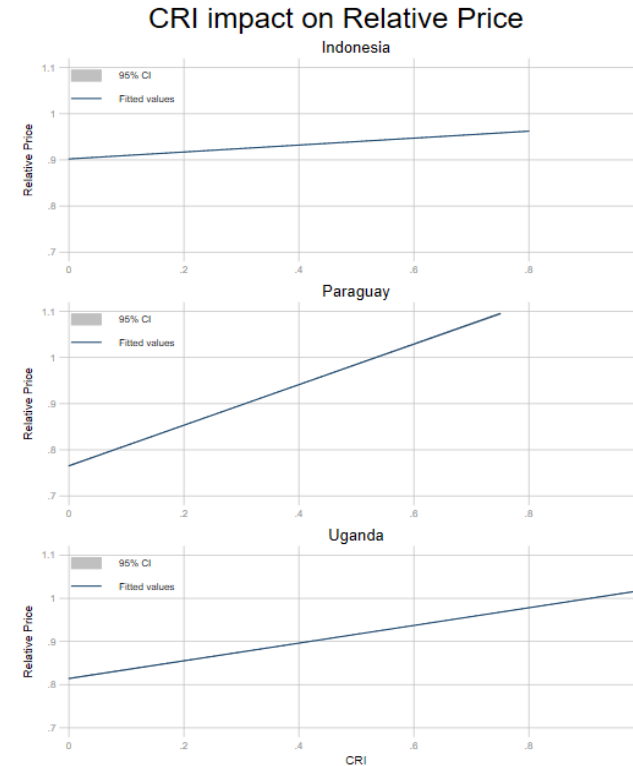
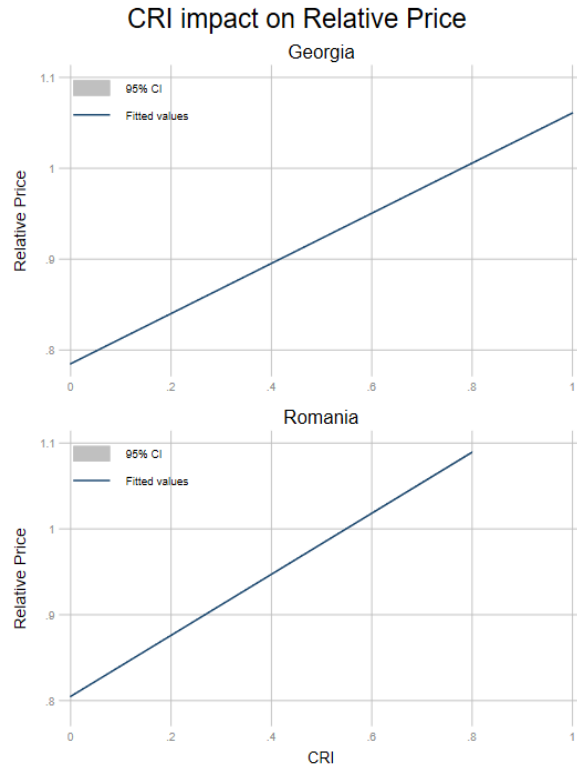
(Indices of CRI components)



Different country risk profiles, in terms of

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

Corruption risks & overpriced projects



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

· OLS:

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

- 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

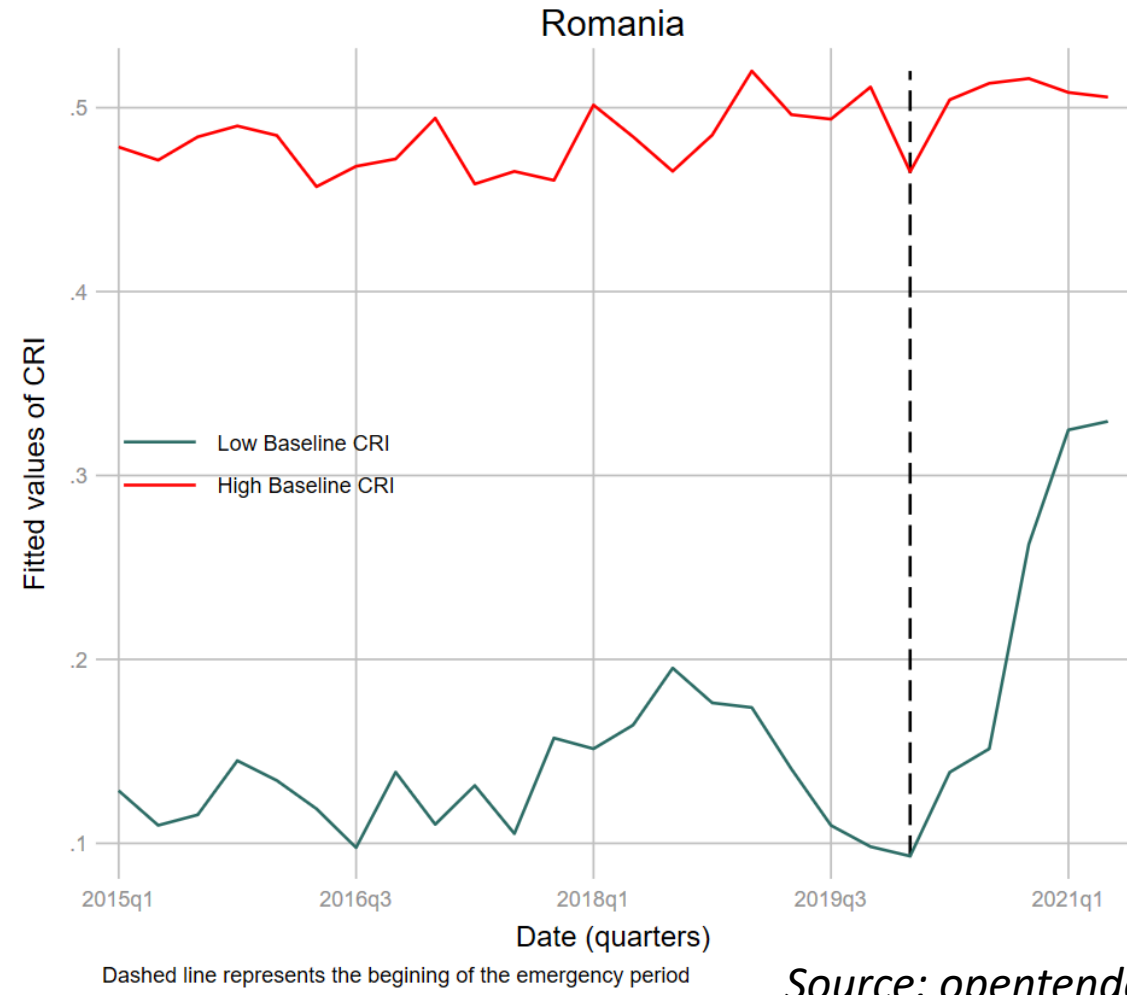
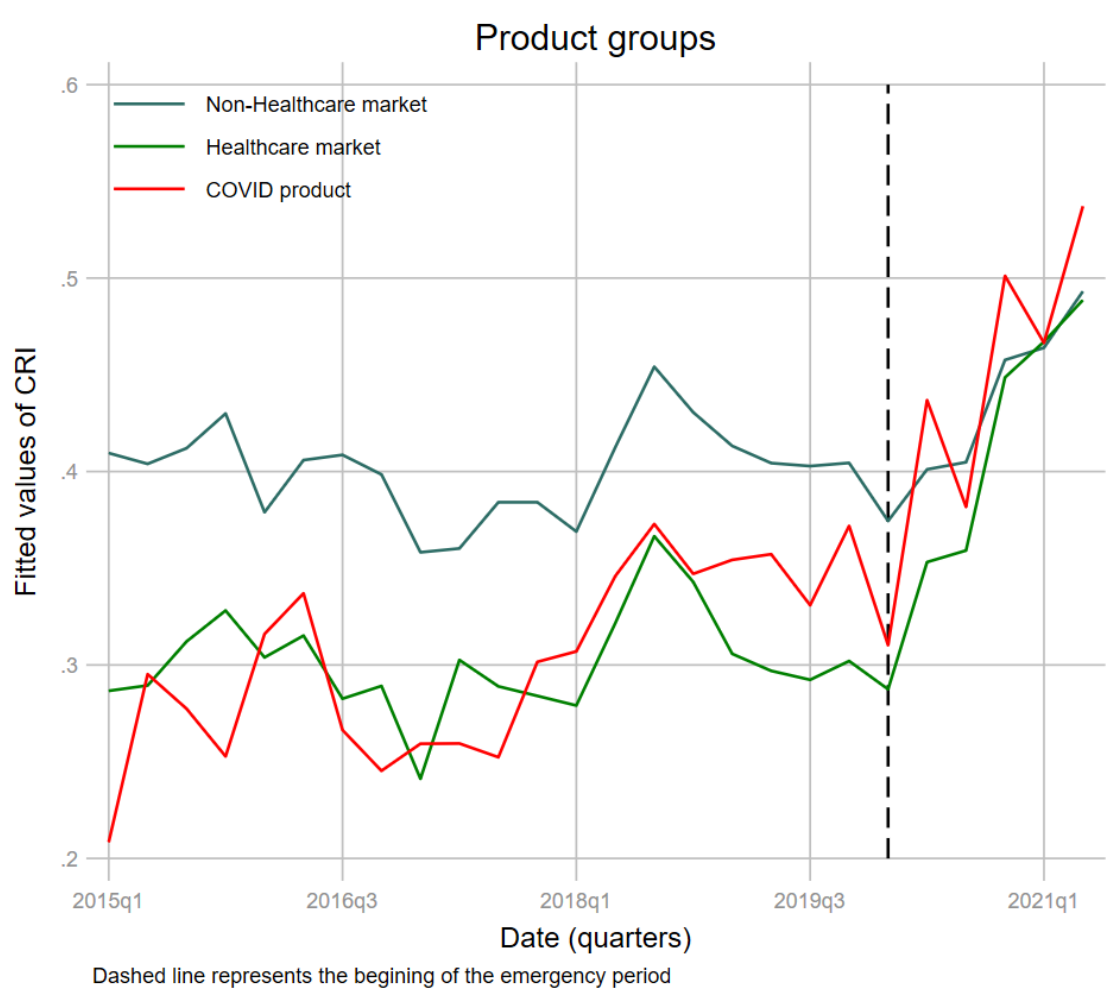
1. Landing page: country selection
2. Corruption risks mapping
3. Spending composition: aligned with macro stats!
4. Losses to corruption
5. Savings scenarios

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



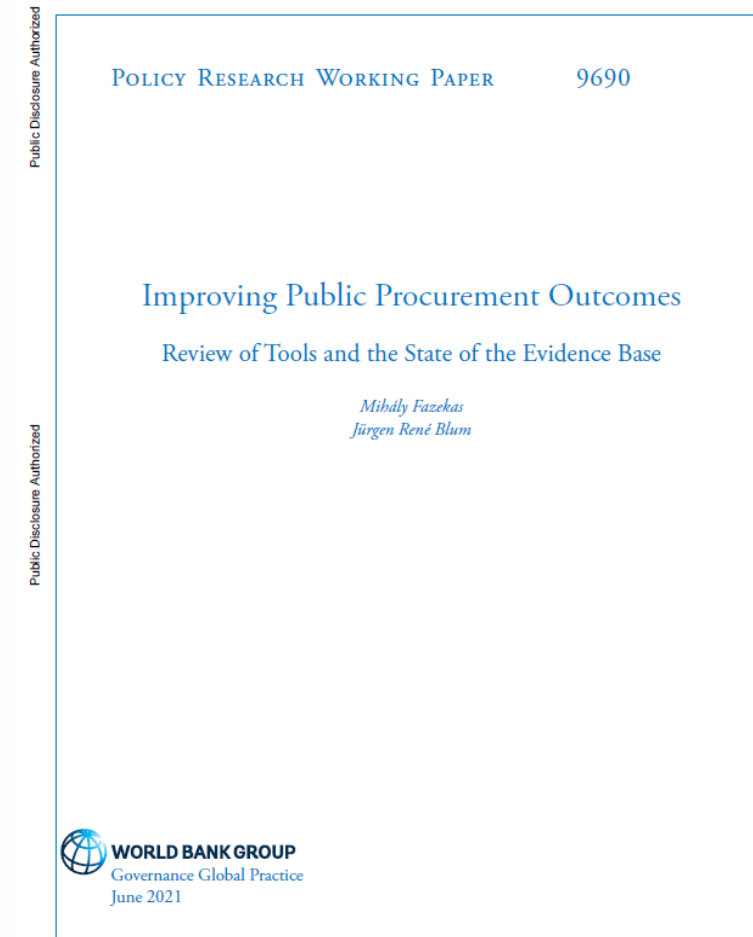
Further work:

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:

Fazekas, Mihály; Blum, Jürgen Rene. (2021) Improving Public Procurement Outcomes: Review of Tools and the State of the Evidence Base. Policy Research Working Paper: WPS 9690, Washington, D.C.: The World Bank. See: <https://openknowledge.worldbank.org/handle/10986/35727>



Let us open the floor

Looking forward to your questions!

Further resources

<http://www.govtransparency.eu/>

<http://redflags.govtransparency.eu/>

https://www.researchgate.net/profile/Mihaly_Fazekas/research

The macro picture: the evidence at a glance

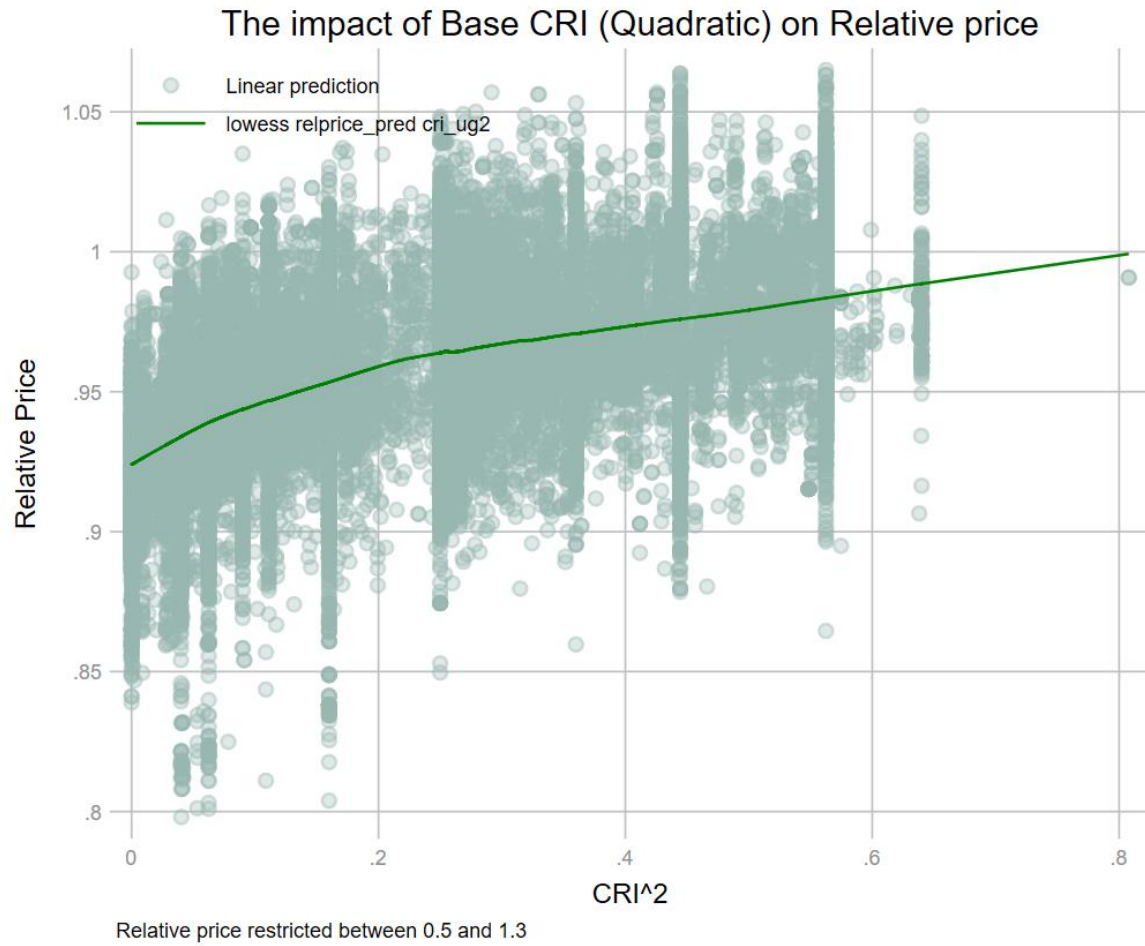
Interventions targeting specific procurement phases

Interventions targeting the cycle

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

Source: Fasekas and Blum (2021)

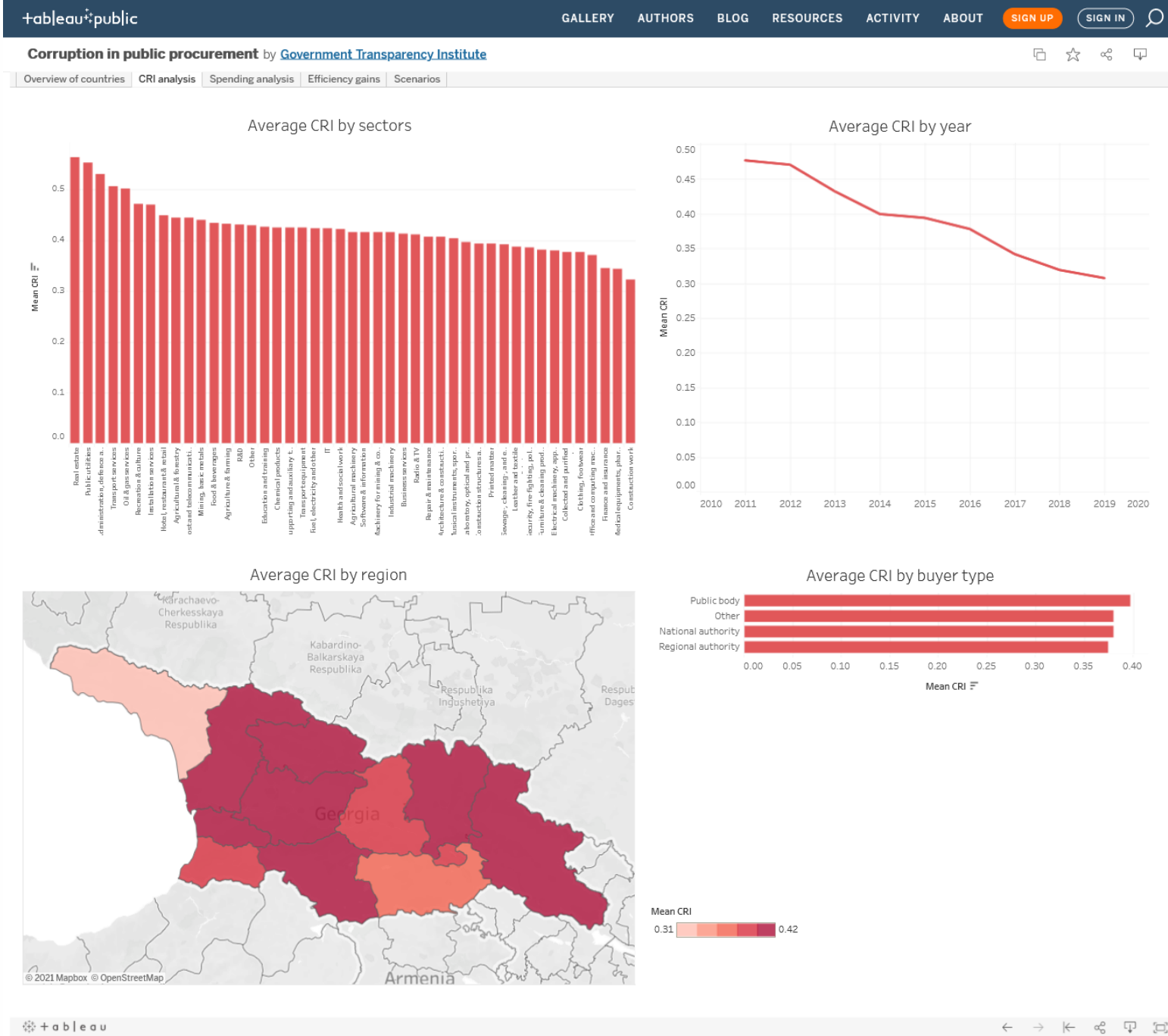
Further analytical work: nonlinear and heterogeneous price effects



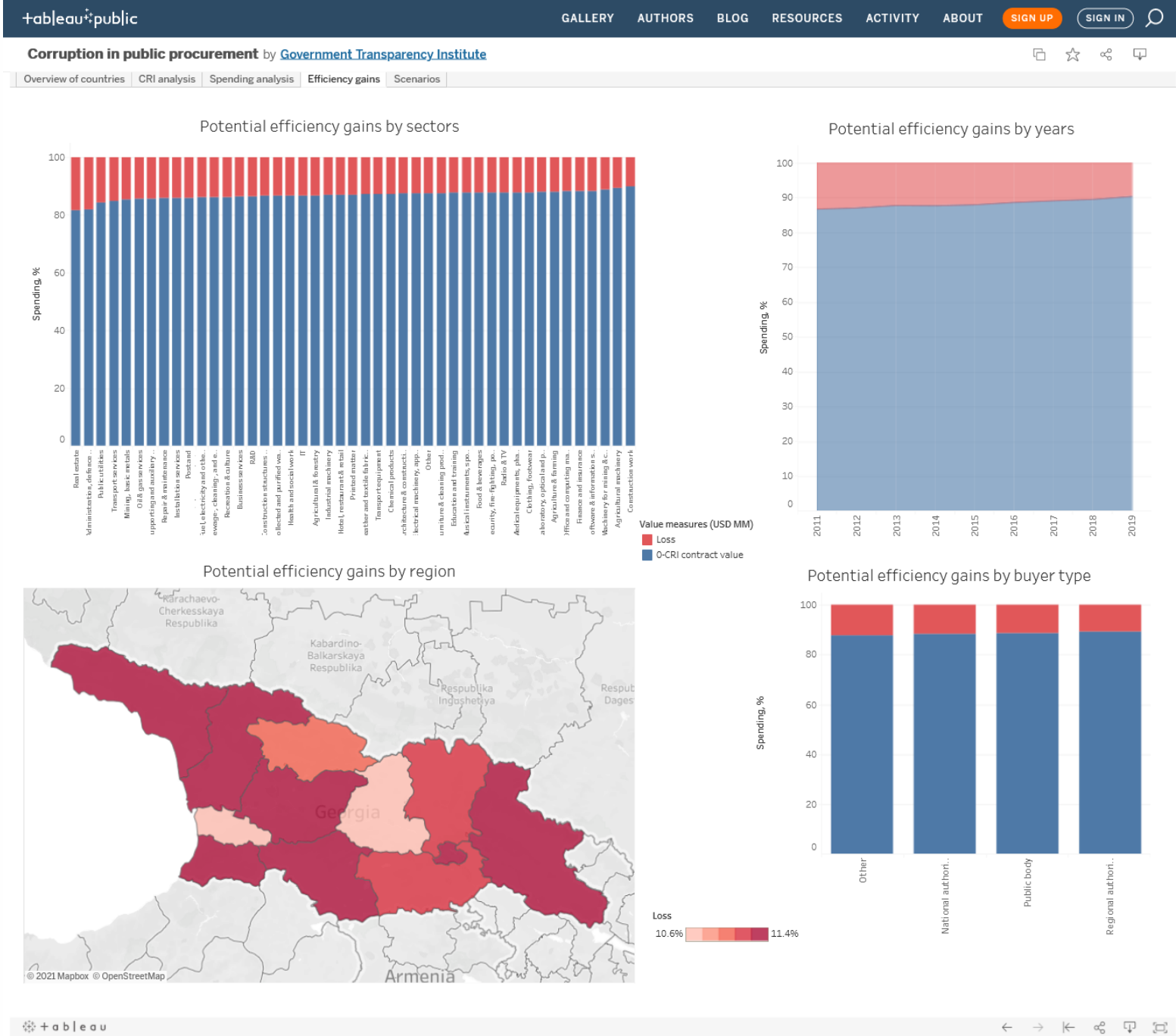
Markets with more than 30 obs

Uganda, 2015-2020, Ncontract=41 394

Back-up slides



Back-up slides

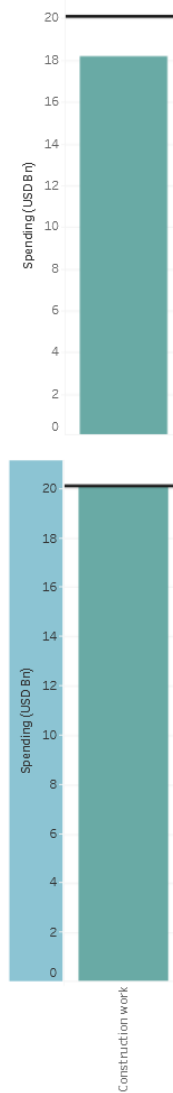


Back-up slides

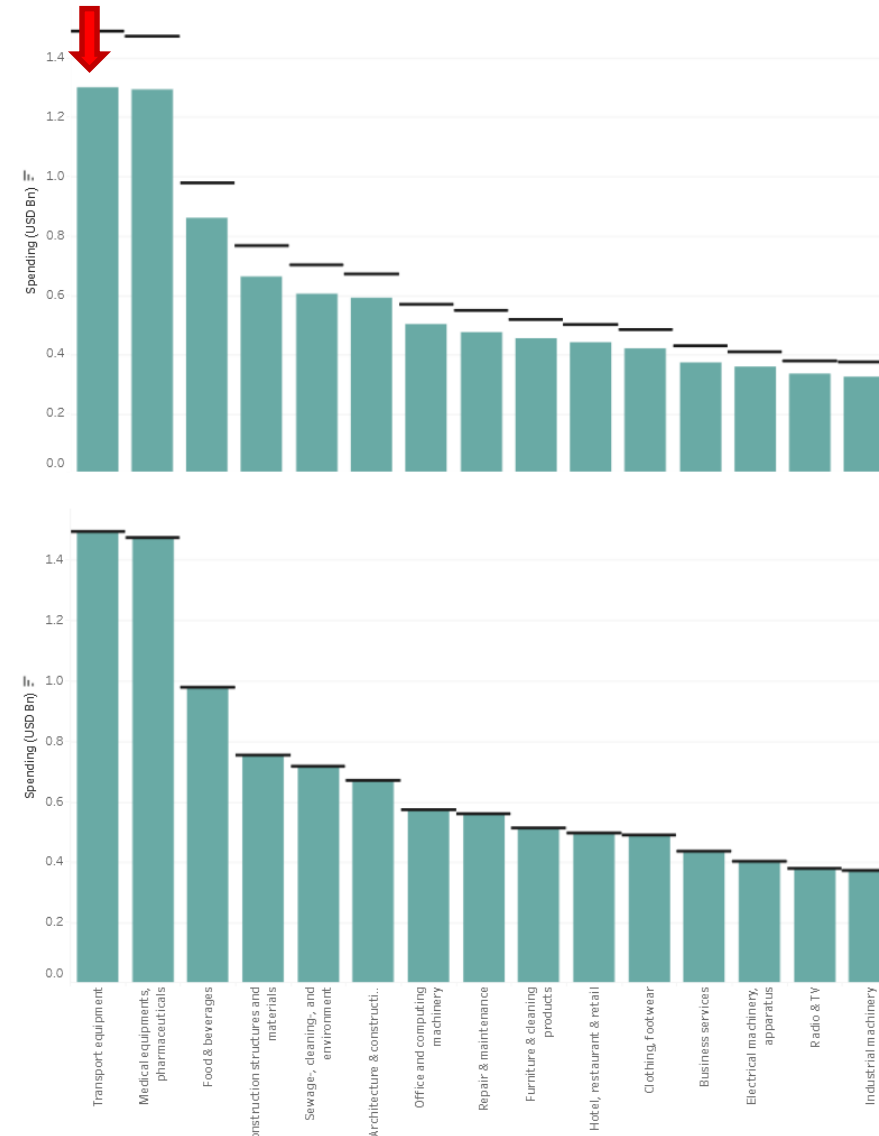
Corruption in public procurement by Government Transparency Institute

Overview of countries CRI analysis Spending analysis Efficiency gains Scenarios

Spending in construction



Spending by top-15 sectors following construction



Scenarios - CRI

- ☐ Actual CRI level
- ☒ No corruption risks
- ☐ 66%-lower CRI
- ☐ 33%-lower CRI
- ☐ 33%-higher CRI
- ☐ 66%-higher CRI

Scenarios - single bidding

- ☒ Baseline
- ☐ No single bidding
- ☐ 66%-lower single bidding
- ☐ 33%-lower single bidding
- ☐ 33%-higher single bidding
- ☐ 66%-higher single bidding