Econ 5700 slides
Corruption

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Widespread phenomenon in poor countries: *corruption*

Often suggested corruption is bad for growth

Challenges for researchers:

- Corruption hard to define, even harder to measure
- Difficult to isolate effects of corruption in cross-country data from those of other covariates; same multicollinearity issues that Mankiw discussed
- Theoretically not always clear how corruption might harm growth
- Even if we know that corruption is bad for growth, not obvious what can we do about it

Svensson (2005): overview article on research on corruption up until then

Structured around eight questions:

1. What is corruption? What is not corruption?

2. Which countries are most corrupt? (What cross-country data exist on corruption?)

3. Common characteristics of corrupt countries?

4. Magnitude of corruption?

5. Do higher wages reduce corruption?

6. Does competition reduce corruption?

7. Why is fighting corruption so hard?

8. What effect does corruption have on growth?

1. What is corruption?

"...misuse of public office for private gain." (p. 20)

Often same as *bribes*, i.e., payments to government officials in return for favors

Not at all the same as *taxation*: revenue not used for public good, higher transaction costs, non-enforceable contracts

Not the same as *lobbying*: benefits of corruption (bribes) more firm-specific, less permanent, than lobbying

Not always/exactly the same as *rent-seeking*: the latter tends to be the result of government intervention (e.g., trade restrictions), rather than the action of an individual civil servant

2. Which countries are most corrupt?

Partly depends on how it is measured; a few different data sets

Three sources for more subjective measures:

(1) International Country Risk Guide; collected for commercial purposes by private firm Political Risk Services

(2) Corruption Perception Index; collected by Transparency International, based in turn on various other sources/rankings

(3) Control of Corruption; based on similar sources as CPI but different aggregation

Two based on survey data:

(4) A World Bank survey of firm managers; only 23 countries

(5) The International Crime Victims Survey; individual-level surveys conducted by a UN body

Table 1: 10% most corrupt countries for four of the data sets; most corrupt at the top

Different sets of countries in each data set, different scales

But some intersection: e.g., Nigeria shows up on all four lists, Haiti on three

3. What do corrupt countries have in common?

Figure 1: strong correlation between corruption (here CC score) and GDP/capita

Lots of variation in corruption at given level of GDP/capita; note, e.g., rich and corrupt Macao and equally rich but far less corrupt Singapore

Hard to speak to causality: many factors can make countries both poor and corrupt, e.g., institutions, legal system, religion, human capital...

Table 2: years of schooling correlated with corruption also when controlling for GDP/capita

Table 3: openness (somewhat) correlated with corruption also when controlling for GDP/capita and years of schooling

Table 4: "difficulty of doing business" correlated with corruption also when controlling for GDP/capita and years of schooling

Table 5: press freedom correlated with corruption also when controlling for GDP/capita and years of schooling

4. What is magnitude of corruption?

Hard to say, since corruption is by nature a hidden phenomenon

Examples of attempts to quantify magnitude:

- Reinikka and Svensson (2004) look at school grants in Uganda and compare total amount spent by the government with survey responses from schools about how much was received, cash and in kind. They find only 13% of funds reported as received.

- Di Tella and Schargrodsky (2003) looked at how much prices paid for supplies procured by hospitals changed after a crack-down on corruption in Argentina 1996-97. Prices fell by 15%. Might suggest overpayment before crack-down.

5. Do higher salaries reduce corruption?

Many theoretical models with "efficiency wage" mechanisms: civil servants might be more keen to keep well-paid jobs, making them less corrupt

Few empirical studies

Some anecdotal evidence: Sweden in the 17th-18th centuries was highly corrupt; the situation improved in the late 19th century with better compensation of civil servants; today one of the least corrupt countries

Cross-country studies: mixed evidence, poor data; e.g., aggregate wages, rather than wages of the potentially corrupt

Study by Di Tella and Schargrodsky (2003) mentioned above: price differentials smaller when wages of procurement officials higher relative to outside wages

- However, mostly driven by variation in outside wages

- Also, in the context of an outside audit

6. Does competition reduce corruption?

Theoretically ambiguous; many possible mechanisms

- Competition *between firms* can lower profits, thus less to pay bribes with (competition$\uparrow \Rightarrow$corruption$\downarrow$). But corrupt officials themselves may decide who can enter market (corruption$\uparrow \Rightarrow$competition$\downarrow$)

- Competition *between civil servants* could reduce corruption, e.g., if one official asks for bribe, you can choose another one (competition$\uparrow \Rightarrow$corruption$\downarrow$). But sometimes several officials need to give approval; may end up competing with each other for bribes (competition$\uparrow \Rightarrow$corruption$\uparrow$)

The voice-exit argument

- Ugandan school example again: parents who don't like corrupt school may leave for another school, instead of filing formal complaint; this can make it easier for corruption to continue

7. Why so few successful attempts to fight corruption?

Agents in charge of overseeing corruption may be corrupt themselves; problem in many poor countries

Little evidence that more resources to existing legal authorities help against corruption

Better luck when establishing new, independent institutions; e.g., Singapore, Hong Kong.

In case of Singapore, also higher salaries (cf. question 5 above)

Other methods:

- Lawsuits
- Public access to information (transparency)
- Delegation of certain tasks to international agencies; e.g., customs pre-shipment inspections

8. Does corruption harm growth?

Many theories on economic effects of corruption, e.g., Murphy-Schleifer-Vishny model below

Empirical work: micro- or firm-level data; cross-country data

Example of micro evidence:

Svensson (2003) finds that Ugandan firms can avoid bribes by having more "reversable" (less productive) capital

Macro evidence: Table 6

- When controling for schooling (and initial GDP/capita), little correlation between corruption (measured by ICRG) and growth

- Many possible explanations
  - Reverse causality: more to steal when countries grow (growth$\uparrow \Rightarrow$corruption$\uparrow$); cf. Mankiw
  - Corruption data too coarse; some forms of corruption worse than others

Corruption among UN diplomats

Difficult to assess whether corruption is due to lack of legal enforcement or culture

Matters for whether tougher enforcement is effective in combatting corruption

Fisman and Miguel (2007) try to answer this question by exploring parking behavior among immune UN diplomats in New York 1997-2005

Idea:

- Uniform legal framework; different cultural backgrounds
- Initially:
  - diplomatic cars could be ticketed
  - but no consequences if tickets not paid
- Change in enforcement in November 2002:
  - NYC allowed to revoke diplomatic license plates after more than three violations

Countries with top violations per diplomat:

- Kuwait, Egypt, Chad, Sudan, Bulgaria, Mozambique, Albania, Angola, Senegal, Pakistan; all very corrupt by most measures

Countries with zero violations:

- Scandinavian countries, Canada, Japan; all not corrupt

Suggests culture matters

Big drop in total monthly violations after November 2002 (see Figure 1)

(Smaller drop around September 11th, 2001)

Suggests enforcement matters, too

Panel data:

- Approximately 149 countries
- Two time periods, before and after November 2002

Dependent variable:

- Total number of unpaid parking violations for each country

Independent variables:

- Control of Corruption index (discussed by Svensson 2005 above)
- Post-enforcement dummy (=1 after Nov. 2002)
- Number of diplomats
- Log GDP per capita
- Regional dummies

Regression results (Table 3)

- More corrupt countries have more parking violations
  - Culture matters
- Fewer violations after Nov. 2002
  - Enforcement matters
- Little effect of log GDP per capita
- Results unchanged when adding regional dummies

Model of corruption (or rent-seeking)

Murphy, Schleifer and Vishny (1993)

Agents choose whether to be producers or rent-seekers

- If producers, they choose sector:
  - Either work in a market sector earning gross income α, part of which is stolen
  - Or work in "home production" earning (safe) income $\gamma < \alpha$
- If rent-seeking, agents earn what they steal from market producers

Find payoffs to being a producer and rent-seeker, respectively

Let $S \leq \beta$ be the (endogenous) amount stolen per rent-seeker, where β is the (exogenous) maximum amount a rent-seeker can steal

The amount stolen per market producer thus equals Sn, where n is the ratio of rent-seekers to market producers

If all producers work in the market sector:

- Each rent-seeker takes the maximum; rent-seeker income is β
- Each producer earns income $\alpha - \beta n$; $\beta n =$ stolen per producer $=$ stolen per rent-seeker times the rent-seeker/producer ratio

If some producers work in home production:

- Each producer earns income $\alpha - Sn$, where S is amount taken per rent-seeker; this must equal γ, since producers must be indifferent between home and market

- From $\alpha - Sn = \gamma$ follows that rent-seeker income must be $S = (\alpha - \gamma)/n$

Let n' be the level of n above which some producers work in home production, i.e., $\alpha - \beta n' = \gamma$

That is:

$$n' = \frac{\alpha - \gamma}{\beta}$$

Now income per rent-seeker equals

$$R(n) = \min\{\beta, (\alpha - \gamma)/n\} = \begin{cases} \beta & \text{if } n \leq n' \\ \frac{\alpha - \gamma}{n} & \text{if } n \geq n' \end{cases}$$

And income per producer equals

$$Y(n) = \max\{\gamma, \alpha - \beta n\} = \begin{cases} \alpha - \beta n & \text{if } n \leq n' \\ \gamma & \text{if } n \geq n' \end{cases}$$

Both $R(n)$ and $Y(n)$ depend negatively on the rent-seeker-producer ratio, n

Intuition: more rent-seekers means less left for producers, and also less to steal per rent-seeker

Illustrate in diagram with n on horizontal axis, $R(n)$ and $Y(n)$ on vertical

Three cases: $\beta < \gamma$; $\beta \in (\gamma, \alpha)$; $\beta > \alpha$

- If $\beta < \gamma (< \alpha)$, then no equilibrium with rent-seeking, all producers in market sector ($n = 0$)
- If $\beta > \alpha$, then some producers in home sector in equilibrium
- If $\beta \in (\gamma, \alpha)$, multiple equilibria