

Corruption I: An Introduction

- What is Corruption?
- Are Poor Countries more Corrupt?
- Causes of Corruption
- Costs of Corruption

What is Corruption?



*“I’ve got this thing and it’s
(expletive) golden, and, uh,
uh, I’m just not giving it up
for (expletive) nothing.”*

*-- Rod Blagojevich,
Governor of Illinois*

What is Corruption?

- “I know it when I see it...”
- We will focus on public corruption. Usual definition:
 - “Illegal use of public office for private gain”
- Slight modifications:
 - “Inappropriate use of public office for private gain”
 - “Deviation from accepted use of public office for private gain”
- Common forms
 - Bribery
 - Theft of state property

Are Poor Countries More Corrupt?

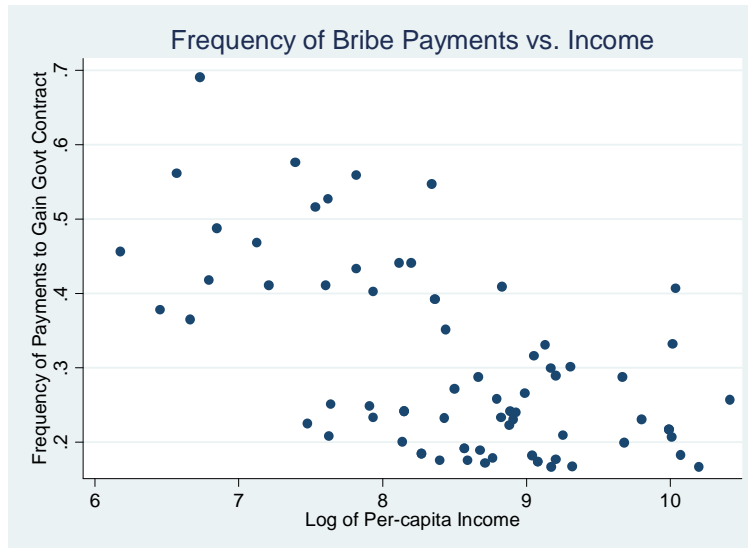
- Corruption measure #1
 - *International Country Risk Guide* (Political Risk Services)
 - Assessments based on opinions of experts
 - 105 countries, 1982 to present

doubling GDP per-capita \Leftrightarrow 24% ↓ in corruption

- Corruption Measure #2
 - *World Business Environment Survey* (World Bank)
 - 10,000 firms surveyed in 80 countries in 1999
 - Question: How common is it for firms to pay bribes?

doubling GDP per-capita \Leftrightarrow 40% ↓ in corruption

Are Poor Countries More Corrupt?



- Data source: *World Business Environment Survey* (World Bank)

Corruption I: An Introduction

- What is Corruption?
- Are Poor Countries more Corrupt?
- **Causes of Corruption**
- Costs of Corruption

Causes of Corruption

Temptations

- Sidestep government regulations
- Supplement low public sector wages
- Tap specific industries (natural resources)

Weak constraints

- Weak enforcement
- Weak social sanctions (“culture”)
 - Norms of favoritism (nepotism, ethnicity bias)
 - Norms of gift-giving (guanxi, etc)
 - “Relationship building” in countries with relationship-based governance

Focus: Government Regulation

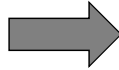
Government regulations/laws impose costs



Incentives to trade favors for bribes

- Examples
 - Import quotas / licenses
 - Bidding for government contracts
 - Government subsidized bank loans
 - Safety regulations (worker safety, driver’s license, etc)

More Local Examples...



Focus: Social Norms

- Why might some actions by public servants or other individuals be viewed differently in different societies?
- Why do many countries with similar income levels have wildly different levels of corruption?
- Equilibrium vs. Preferences
 - Do individuals in some societies just like corruption, or are some societies simply stuck in a bad equilibrium?

Example: Petty Corruption

- In Mexico City, we observe high rates of bribery among traffic policemen
- How do we explain this “culture of corruption”?
- Model
 - Fine costs \$10
 - Bribe costs \$5
 - Disagreement over whether bribe should be paid results in significant risks for both parties
 - Driver fears an angry policeman
 - Policeman fears conflict with driver

Example: Petty Corruption

Driver

| | | Offer Bribe | Pay Fine |
|-----------|---------------|-------------|----------|
| Policeman | Solicit Bribe | (5,-5) | |
| | Collect Fine | | (0,-10) |

Payoff are written (Policeman, Driver)

Example: Petty Corruption

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| | | | |
|-----------|---------------|-------------|-----------|
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Equilibrium that prevails will depend on beliefs about others' behaviors

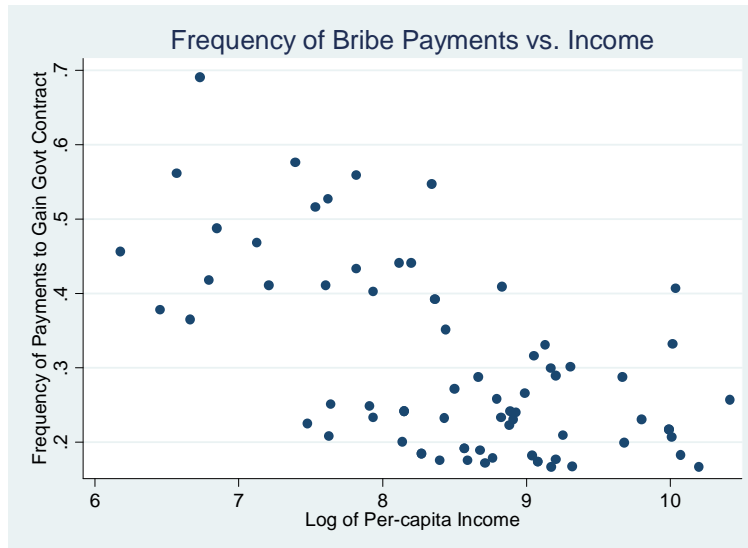
Kellogg Students on a GIM Trip to Peru...



Culture as Equilibrium Behavior

- Otherwise identical societies may still arrive at different corruption equilibrium
 - *Beliefs* about others' behaviors define which equilibrium prevails
 - We can think of different beliefs and resulting outcome as different "culture"
- Private and social preferences may diverge
 - Driver/policeman 'prefer' corrupt outcome
 - Society may prefer other equilibrium

Are Poor Countries More Corrupt?



- Data source: *World Business Environment Survey* (World Bank)

Eliminating Corruption

- Changing the equilibrium can be difficult
 - Mistakes may be very costly to the parties
 - Social norms or “culture” may be very persistent
- Methods to change equilibrium
 - Alter payoffs (at least temporarily)
 - Try to alter beliefs
- Example
 - Introduce monitoring of traffic policemen
 - Policemen are caught with probability P
 - Fined \$100 if caught

Example: Petty Corruption

Driver

| | | | |
|-----------|---------------|----------------|--------------|
| Policeman | | Offer Bribe | Pay Fine |
| | Solicit Bribe | $(5-100P, -5)$ | $(-50, -50)$ |
| | Collect Fine | $(0, -50)$ | $(0, -10)$ |

Monitoring makes soliciting bribes riskier for policeman

Example: Petty Corruption

Driver

| | | | |
|-----------|---------------|----------------|--------------|
| Policeman | | Offer Bribe | Pay Fine |
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If P is greater than 5%, then policeman will never solicit bribe and equilibrium is unique: fines are paid.

Challenge: Weak Enforcement & Vested Interests

- Implementing such reform may be extremely hard
- Need effective institutions (courts, police, auditors) to catch and punish corrupt public servants
- But judges, police, et cetera may have *vested interests* in continuing corruption, if already corrupt
 - Earning income
 - Fear jail if system is cleaned up
- Corruption may settle in as a sub-optimal but very persistent and pervasive equilibrium

Eliminating Corruption: Culture and Enforcement

- Evidence for cultural effect (Fisman and Miguel 2008)
 - All United Nations diplomats in New York City have the same diplomatic immunity
 - Fisman and Miguel study whether they pay parking tickets
 - 1997-2002, \$18 million in unpaid fines
 - Propensity to pay tickets is highly correlated with corruption measures for home country (!)
- Evidence for enforcement effect (Fisman and Miguel 2008)
 - Clinton-Schumer Amendment
 - NYC begins towing cars and revoking license plates
 - U.S. begins subtracting unpaid tickets from aid money
 - Parking offences by diplomats drop > 95%

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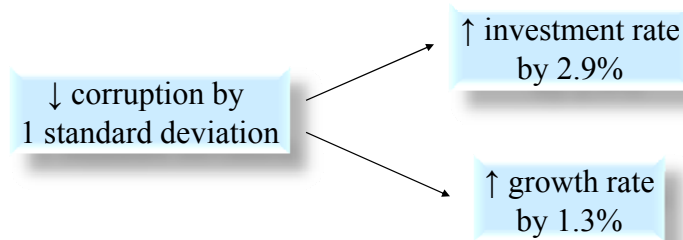
- What is Corruption?
- Are Poor Countries more Corrupt?
- Causes of Corruption
- **Costs of Corruption**

Corruption I: An Introduction

- Costs of Corruption
 - Resource allocation
 - “Greasing the Wheels” vs. “Sand in the Gears”
 - Centralized vs. decentralized corruption

Is Corruption Bad For Growth?

- Recall Session #2, Mauro (1995)



- Mauro includes controls for initial income level and education level in each country

Could there be Social Benefits to Bribery?

- Argument #1: Bribes allocate resources efficiently
 - Bribery is like a sealed-bid auction
 - Bureaucrat solicits bids from many firms for contract
 - Highest bidder (briber) is the firm that will be most productive
 - Bribes ensure efficient allocation of projects across firms
- Argument #2: Bribes “grease the wheels”
 - States impose excessive regulations on firms
 - Bribery allows firms to sidestep these costly regulations
 - Society gains from bribes

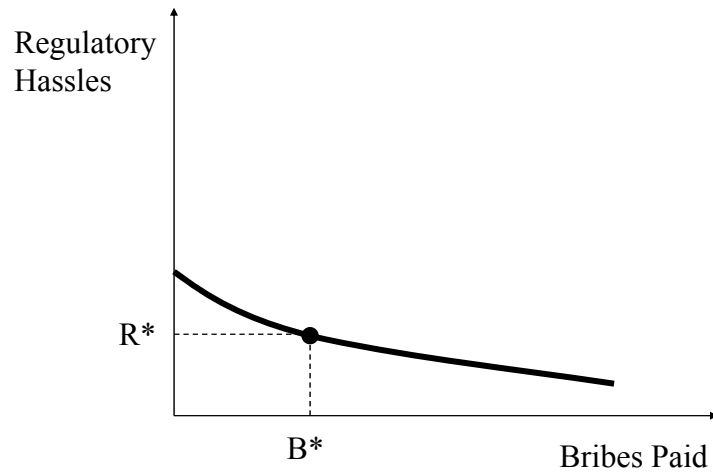
Problems with Efficient Allocation Argument

- What will bureaucrat do with the bribe?
 - In a public auction, most efficient firm still wins
 - Income to bureaucrat's pocket instead of government programs
- Will most efficient firms really win contracts?
 - Bureaucrat may restrict entry in the bribe process
 - Preference for family/friends
 - Fear of punishment
 - Some firms may be legally or morally (culturally) constrained from offering bribes
 - Bureaucrat may choose firm most likely to pay future bribes, as opposed to most productive firm

Problems with "Greasing the Wheels" Argument

- Many regulations are good!
 - Drivers' licenses for truckers
 - Safety regulations in factory
- Short-sighted solution to bad regulations
 - Sidestep a bad regulation today
 - Willingness to pay bribe observed
 - More bad regulations may be imposed
 - Country descends into regulatory swamp
- "Greasing the wheels" may create "sand in the gears"

Short run: Firm makes regulatory/bribery tradeoff



Bribe-paying Creates “Sand in the Gears”

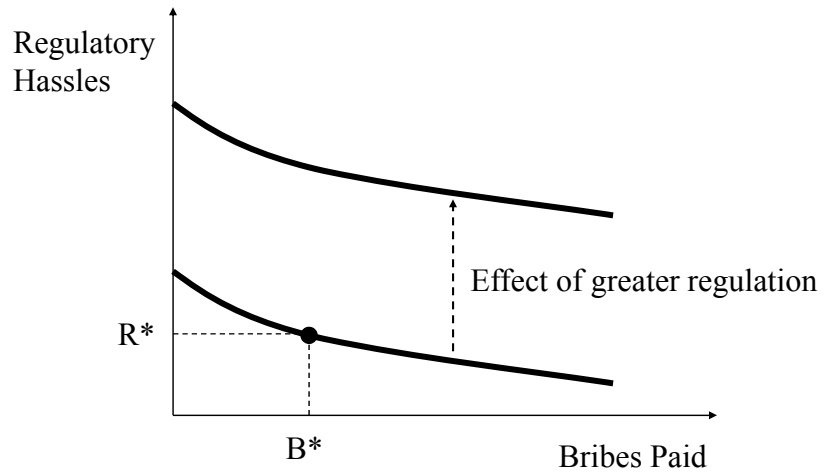
Government Programs Impose Onerous & Inefficient Regulations

Bribery supplements bureaucrat's income

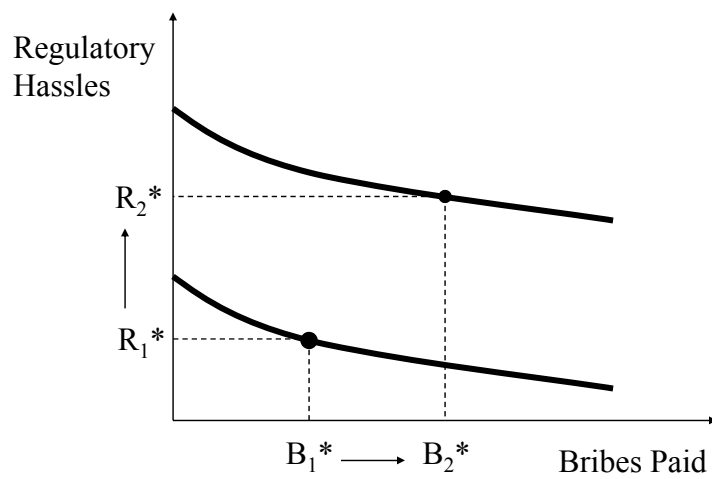
Incentive to add new regulations



Firm faces more regulation for any given bribe



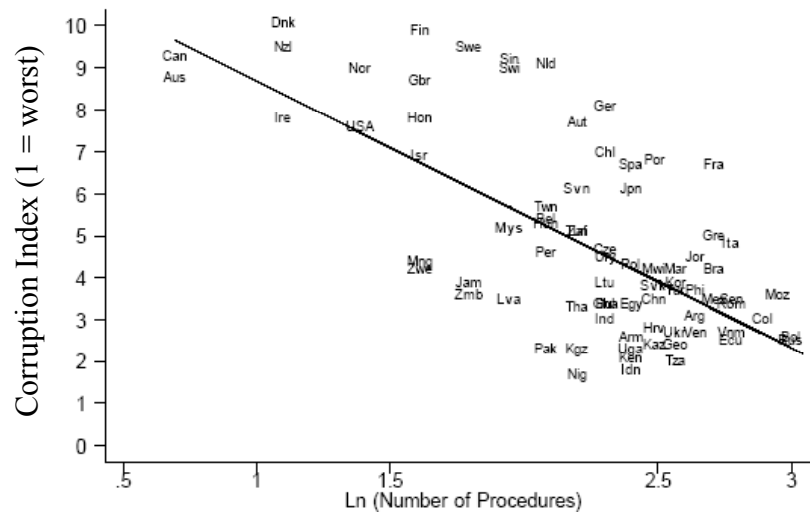
More equilibrium regulation, more equilibrium bribery



Evidence: Grease or Sand?

- Kaufman & Wei (1999)
 - Firms in industries with higher rates of bribery spend *more time* dealing with regulators, not less
- Djankov et al (2001)
 - Examine number of regulatory steps required to start a business in various countries
 - Find that high levels of corruption are associated with high numbers of regulatory steps

Evidence: Grease or Sand?



Source: Djankov et al (2001)

Evidence: Grease or Sand?

- Average time and cost to start a business, assuming all legal procedures followed (Djankov et al, 2001)

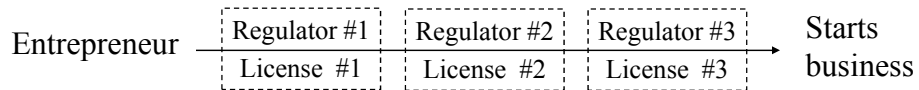
| Income Group | Time (Days) | Cost (% annual GDP per capita) |
|--------------------------|-------------|--------------------------------|
| Top Quartile | 25 | 10% |
| 2 nd Quartile | 49 | 33% |
| 3 rd Quartile | 53 | 41% |
| Bottom Quartile | 64 | 108% |

Decentralized vs. Centralized Corruption

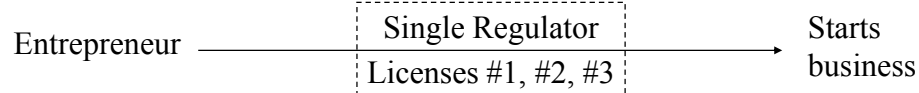
- “Sand in the Gears” will be particularly costly if done in a decentralized manner
- “Toll Booth Theory”: a single actor who receives all the bribes (centralized corruption) is far less costly than having independent actors seeking to maximize their personal income from bribes (decentralized corruption)
- Examples
 - Economist article: “The Road to Hell is Unpaved”
 - Indonesia (Suharto) vs. Zaire
- Is it obvious that decentralized actors will be worse than a single centralized actor?

Decentralized vs. Centralized Corruption

Decentralized Corruption



Centralized Corruption



Toll Booth Theory: A Simple Model

- Imagine that there are N would-be entrepreneurs in a country
- Entrepreneurs need 2 licenses to start a business
- Official price of each license is 0, but in practice entrepreneurs will have to pay a bribe, P , to acquire a license
- Willingness to pay (bribe) for license differs across entrepreneurs. For example:

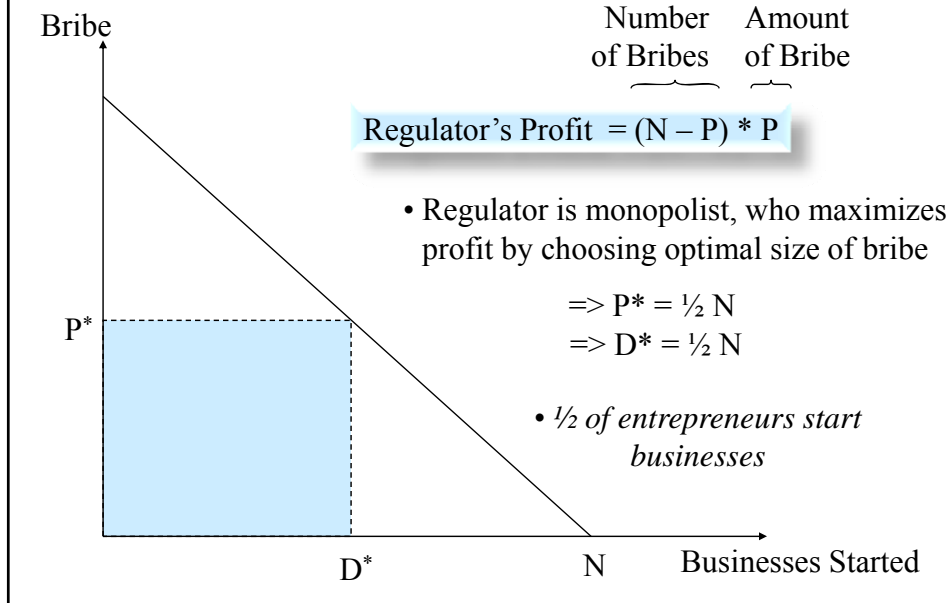
$$D = N - P$$

Number of businesses started

Total number of possible entrepreneurs

Amount of bribe

Centralized Corruption



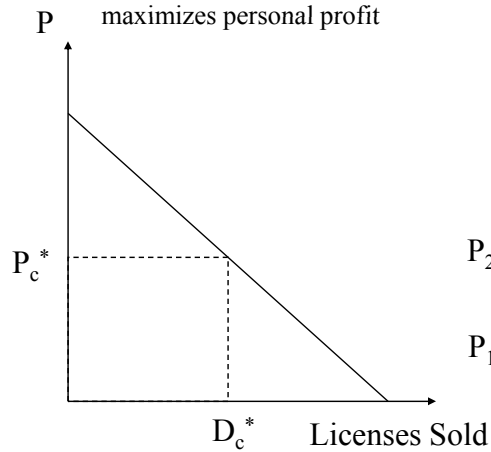
Decentralized Corruption

- First regulator charges P_1^* for license #1
- Number of entrepreneurs who appear before second (final) regulator is only $N_2 = N - P_1^*$, i.e. those who were willing to pay first regulator
- Second regulator chooses bribe, P_2 , to maximize profits when facing this smaller group of entrepreneurs
 - Profit = $(N_2 - P_2) * P_2$
 - Chooses $P_2^* = \frac{1}{2} N_2 \Rightarrow D^* = \frac{1}{2} N_2$
- Number of entrepreneurs who start business is $\frac{1}{2} N_2$
 - Total bribe paid by entrepreneurs is $P_1^* + P_2^*$
 - Fewer entrepreneurs start businesses: $\frac{1}{2} N_2 < \frac{1}{2} N$

Toll Booth Theory

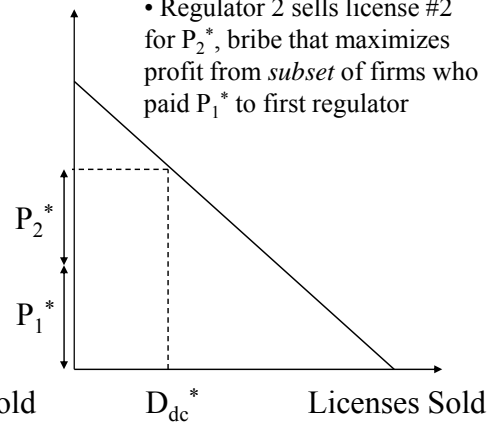
Centralized Corruption

- Single regulator sells both licenses for P^* , the price that maximizes personal profit



Decentralized Corruption

- Regulator 1 sells license #1 for P_1^* , the price that maximizes personal profit
- Regulator 2 sells license #2 for P_2^* , bribe that maximizes profit from *subset* of firms who paid P_1^* to first regulator



Summary: Costs of Corruption

- Evidence that corruption bad for investment and growth
- Specific costs of corruption
 - Inefficient allocation of resources
 - Excessive state regulation to increase bribe opportunities
- Toll Booth Theory
 - Given that environment is corrupt, centralized corruption will be less costly to firms and nations than decentralized corruption