

# Corruption as a constraint on economic growth in Russia

Framework for discussion

by

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# Outline

- Definition and measures of corruption
- Why might corruption affect growth?
- Empirical evidence on the link between corruption and growth
- Empirical evidence on the factors that determine the effect of corruption
- Corruption in Russia
- Implications for growth in Russia

# Definition and measures of corruption

- Definition: The use of public office for private gain
- Measures (mostly perception-based):
  - World Bank (composite index, starts in 1996);
    - Combines different indices and presents standard errors based on these data
  - PRS (former ICRG; longest panel)
  - Other

# Why might corruption affect growth?

## Preface:

- Corruption affects both static efficiency (utilization of existing resources) and economic growth factors (amount and structure of investment in both physical and human capital);
- It is important to keep in mind that corruption may be endogenous to other features of the economy (e.g., regulation)

# Benefits of corruption

- Helps against regulations and red tape (this is a benefit if regulations are excessive)
- Can help direct government services to those economic agents who value them most
- Supplements incomes of officials, reducing the need for tax revenue

# Benefits of corruption (cont.)

- More generally, assuming zero transaction costs (TC) of negotiations and the involvement of all affected parties, corruption would result in socially efficient outcomes (Coase Theorem)

# Costs of corruption

Assuming non-trivial TC:

- Excessive regulations might be developed to increase bribe revenue
- Processing might be slowed down for everybody to facilitate “speed money”
- While bribes reduce the need for tax revenue, bribes are more distortive than taxes

# Costs of corruption (cont.)

Even if TC are low for the directly involved parties, other affected parties (e.g., general population) are not included → corruption benefits well-organized interests. Examples: Tullock's Paradox, poor quality of school construction in China.

Generally, bribes facilitate evasion of socially efficient regulations

# Costs of corruption (cont.)

- Enforcing regulations in the presence of corruption leads to bigger government (Acemoglu&Verdier, AER, March 2000)
- Secrecy of corruption distorts the choice of activities (e.g., imports, types of public investment) (Shleifer&Vishny, QJE 1993)
- Activities that require more government involvement (e.g., investment) are disadvantaged

# Costs of corruption (cont.)

- Tax revenue is reduced if tax administrators are corrupt
- Corruption reduces competition b/c
  - easier to get bribes from fewer clients
  - rents might be easier to extort
  - if bribes serve as entry fee, competition is reduced and unofficial economy grows

# Costs of corruption (cont.)

- Misallocation of talent (high productivity individuals go into redistributive activities)
- Corruption or its potential result in promulgation of regulations to fight it

# Costs of corruption (cont.)

**Corruption is particularly costly when it is *disorganized*, i.e., corrupt officials do not coordinate their bribe demands and paying off one official may not prevent other officials from demanding bribes for complementary services  
(Shleifer&Vishny, QJE 1993)**

# Summary of main costs of corruption

- Evasion of efficient regulations, larger government, and more regulation to compensate for corruption
- Promulgation of excessive regulations to facilitate extortion
- Benefits to well-organized groups at large cost to general public
- Distortions in economic structure (reduced competition, lower investment, etc.)

# Empirical evidence: growth

- Mauro (QJE, 1995)

linear model; both OLS and Instrumental

Corruption control has positive coefficient but only 10% significance; with other controls coefficient becomes insignificant

One SD rise in corruption → 0.8 percentage points lower annual growth rate of GDP

# Empirical evidence: growth

- Mendez&Sepulveda (EJPE, 2006)  
non-linear model (square term), OLS and fixed-effects estimation

Both linear term ( $>0$ ) and square term ( $<0$ ) are statistically significant at 1%, but only for “free” countries → in free countries optimal corruption is positive

# Empirical evidence: growth

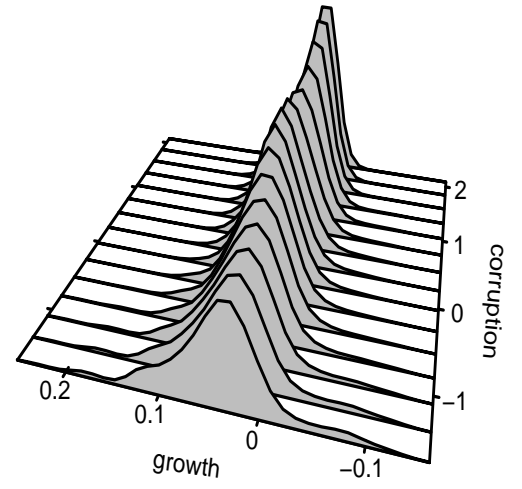
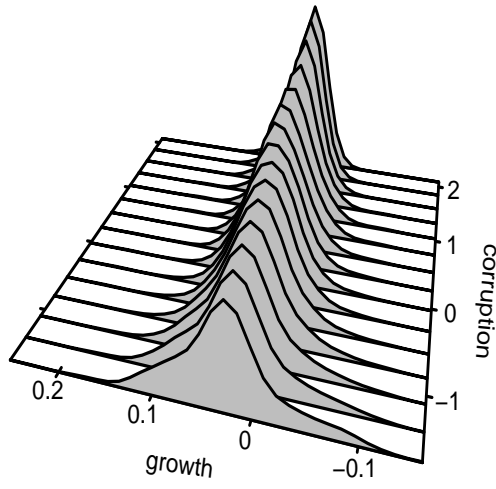
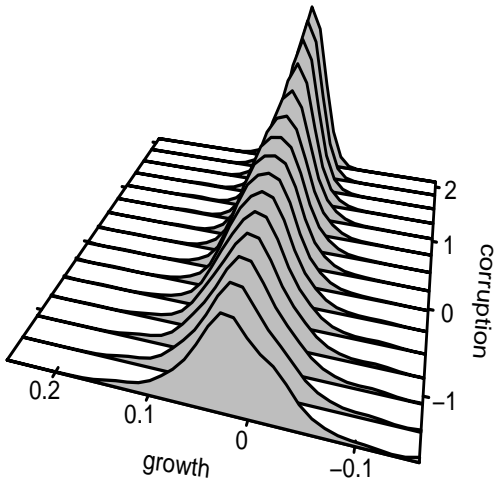
- Alexeev (done for this workshop)  
fixed-effects adjusted for autocorrelation  
(Arellano-Bond estimators)

Corruption control affects growth positively  
in a linear way; no difference between  
democratic and non-democratic countries

# Empirical evidence: growth

- Huynh and Jacho-Chavez (JCE, forthcoming)  
non-parametric estimation

Relationship between corruption and growth is not statistically significant (see graphs on the following slide)



# Empirical evidence: factors

- Mauro (QJE, 1995):

Corruption control index up by one SD → investment up by 2.9% of GDP.

The effect is stronger under 2SLS.

Equipment investment is even stronger associated (negatively) with corruption.

# Empirical evidence: factors

- Mauro (JPubE, 1998): Corruption is negatively related to government expenditure on education
- Gupta et al. (2001): Corruption is related to higher child&infant mortality, percent of low birth-weight babies, higher dropout rates in primary schools

# Empirical evidence: factors

- Wei (1997 a,b): Corruption up → lower investment, incl. FDI. Both level and predictability of corruption are important.
- Tanzi&Davoodi (2001 a,b): Corruption up → lower private investment, higher (low quality) public investment.
- Gupta, et al. (EJPE, 2001): Corruption up → military spending and procurement outlays up (both as % of GDP and of gov-t expenditure).

# Empirical evidence: factors

- Oil curse literature: “Point-source” resources worsen corruption that in its turn reduces economic growth
- Alexeev&Conrad (REStat, forthcoming): corruption level is not significantly affected by oil and mineral wealth

# Russia's economic growth 1999-2007

- Annual GDP growth (2000\$): 6.8%
- Annual PC GDP growth (2000\$): 6.6%
- Annual PC GDP growth (PPP): 6.6%

Growth is due mostly to rise in oil prices:

- Annual oil price growth: 13.7%

# Corruption in Russia (World Bank measure)

Year	1996	2000	2005	2007
WB index	-0.74	-1.02	-0.74	-.92
World rank (# countries)	110 (151)	168 (187)	145 (202)	172 (207)

# Corruption in Russia (WBES)

## Bribe tax (% of sales)

(\*\*, \*\*\* - means difference with Russia significant at 5%, 1%)

Year	2000	2002-3	2005
Russia	3.8	1.4	1.1
CIS	5.9***	2.0***	1.4***
E. Europe	3.3	1.3	0.8***
Other	2.9***	2.0***	0.9**

# Corruption in Russia (WBES)

## Hidden sales (% of sales)

(\*\*, \*\*\* - means difference with Russia significant at 5%, 1%)

Year	2000	2002-3	2005
Russia	19.8	18.0	15.5
CIS	15.0***	18.4	8.8***
E. Europe	14.6***	14.3***	10.5***
Other	14.9***	24.8***	12.9***

# Corruption in Russia (WBES)

## Severity of problem

(\*\*, \*\*\* - means difference with Russia significant at 5%, 1%)

Year	2000 (1 – no problem; 4 – severe problem)	2002-3 (0 – no problem; 4 – severe problem)	2005 (0 – no problem; 4 – severe problem)
Russia	2.6	1.0	1.2
CIS	2.5	1.3***	1.1
E. Europe	2.4***	1.3***	1.2
Other	2.5	1.9***	1.1

# Conclusions

- Russia's corruption structure has changed from decentralized to more centralized, lowering economic costs of corruption
- But, greater revenues and influence of government has lead to greater corruption
- Hard to discern the effect of corruption on growth (many of the same factors influence both, Russia's growth has been oil-driven)