

Whither Russia's Resource Curse

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CREECA, Madison, 19 November 2009

Sources

- ❑ Chapter 4 of the 2009 EBRD Transition Report
 - (background paper, with Sergei Guriev and Alexander Plekhanov)
- ❑ Why Resource-Poor Dictators Allow Freer Media, *American Political Science Review*, November 2009
 - (with Georgy Egorov and Sergei Guriev)
- ❑ Determinants of Nationalizations in the Oil Sector, *Journal of Law, Economics, and Organization*, 2011
 - (with Sergei Guriev and Anton Kolotilin)

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Road map

- ❑ Main Results
- ❑ A brief on “resource curse”
- ❑ Oil and media freedom
- ❑ Diversification
 - goals
 - tools
 - assessment
- ❑ Impact on institutions

Main Results

- ❑ Russia has failed to diversify during the last 10 years
- ❑ Russia has tried many diversification policies but as government is inefficient and corrupt, there has been no success
 - other resource-rich transition countries fared even worse
- ❑ Governance institutions have not improved
- ❑ “Institutional” resource curse is a probable explanation

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Oil and Growth

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Simple Economics of the “Resource Curse”

- ❑ Commodity rents may be a blessing
 - A “big push” might be needed to go out from an underdevelopment trap (e.g., caused by fixed costs of investment; externalities across sectors)
 - Commodity export revenues could finance such a big push
- ❑ Commodity rents might be a curse
 - depress long-run growth by causing macroeconomics distortions and excess volatility
 - have a negative effect on political institutions

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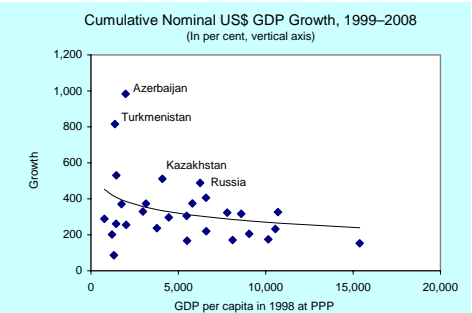
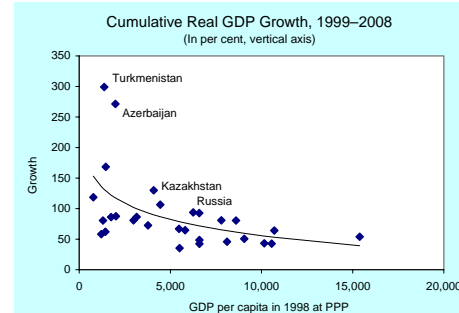
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Macro lessons learned

- ❑ in macro, little resembled petrostates of late 70s
- ❑ fiscal conservatism (up until 2008)
 - budget control
 - debt repayment
 - stabilization funds, despite huge political pressure
- ❑ Mild political pressure on Central Bank (up until 2008)
- ❑ Control of ‘white elephants’ (up until 2007)

Commodity boom brought GDP growth



Sources: International Monetary Fund, EBRD, and authors' calculations.

Sources: International Monetary Fund, EBRD, and authors' calculations, based on 2007 data for Turkmenistan.

Institutional “Resource Curse”

□ Basic idea:

- politicians/elite maximize their rents
 - might like growth when appropriate growth dividends as rents
- good capitalist institutions (courts, police, elected officials) limit rent seeking
- resource abundance discourages investment in good institutions

□ “Institutional Trap”

- if institutions are bad in a resource-rich economy, they are not likely to improve

□ In resource-rich environment, inequality and bad institutions are mutually reinforcing

Evidence

□ Macro impact of oil on

- growth in countries with bad institutions (Mehlum et al. 2006)

□ Micro/institutional impact of oil on

- democracy (Ross, 2001, Wasziarg, 2009)
- political stability and likelihood of civil unrest (Ross, 2006)
- regulation and reforms to improve business climate in non-resource sectors (Amin and Djankov, 2009)
- property rights (Guriev, Kolotilin, and Sonin, 2011)
- corporate governance (Durnev and Guriev, 2009)
- media freedom (Egorov, Guriev, and Sonin, 2009)

One institution: media freedom

Since 2000, in Russia

□ journalists

- have less and less access to government information
- are harassed over their reporting
- got fired for their political views

□ media

- increasingly state-owned, either directly or indirectly
- not free in reporting
- face troubles if do not subordinate to kremlin

□ news

- more and more biased to ‘positive’ reporting
- more and more biased against ‘enemies of Russia’

Media freedom in Russia, an illustration



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Media freedom in Russia, another illustration

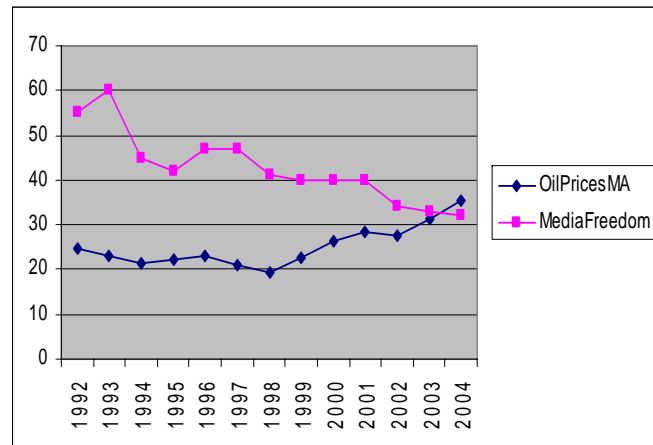


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Media freedom and oil prices, Excel

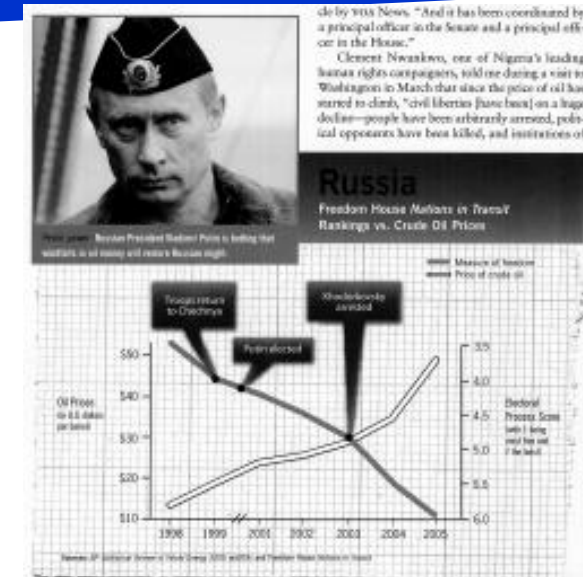
☐ non-scientific, just excel table...



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Some other people have noticed too



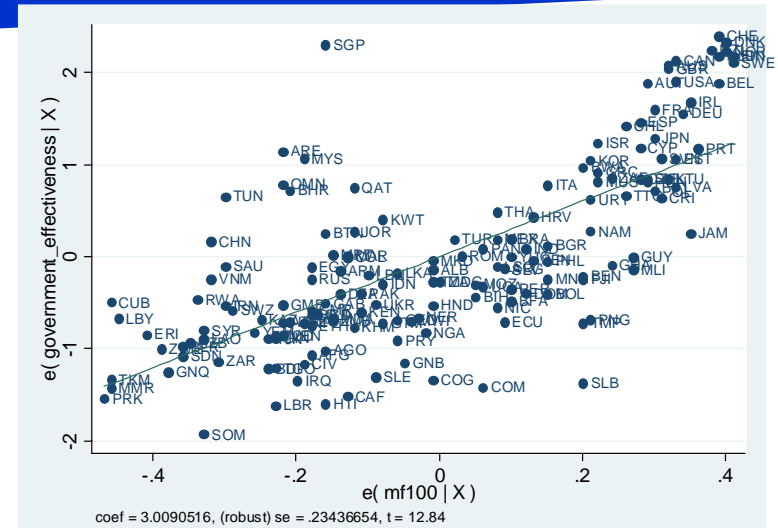
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Does media freedom matter?

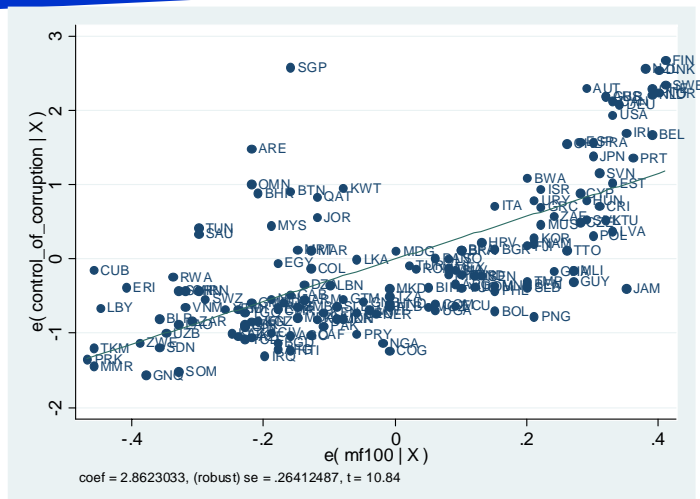
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Media freedom and government effectiveness



Egorov, Guriev, and Sonin (2009)

Media freedom and control of corruption



Egorov, Guriev, and Sonin (2009)

Effect of media freedom on governance

	OLS		Fixed Effects	
	Government Effectiveness	Regulatory Quality	Government Effectiveness	Regulatory Quality
Media Freedom, divided by 100	1.41 (0.30)***	1.26 (0.32)***	0.38 (0.18)**	0.72 (0.23)***
Log GDP per capita, PPP	0.66 (0.06)***	0.50 (0.05)***	0.33 -0.23	0.74 (0.28)***
Log oil reserves	-0.13 (0.05)**	-0.11 (0.05)**	0.01 (0.08)	-0.02 (0.08)
Democracy	-0.04 (0.02)**	-0.01 (0.02)	0.00 (0.01)	-0.01 (0.01)
Log land area	-0.01 (0.04)	-0.03 (0.03)		
Log population	0.11 (0.04)**	0.07 (0.04)*		
Observations	136	136	700	700
R-squared	0.77	0.74	0.04	0.09

Results for media freedom

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Statistical analysis

Hypotheses

- natural resources \Rightarrow less media freedom
- especially so in non-democracies

Data

- Resources: Oil reserves from BP website
- Democracy: Polity IV dataset
- Media Freedom: Freedom House
- Controls: World Development Indicators

Specification

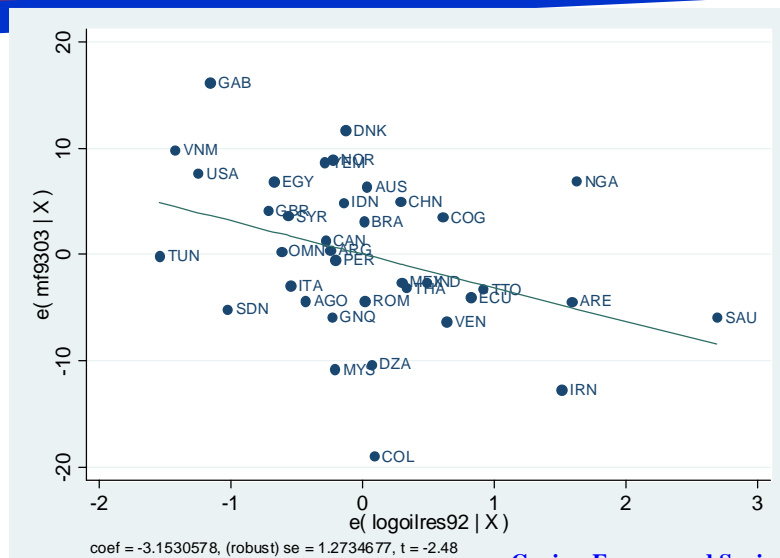
- control for the level of democracy
- country fixed effects

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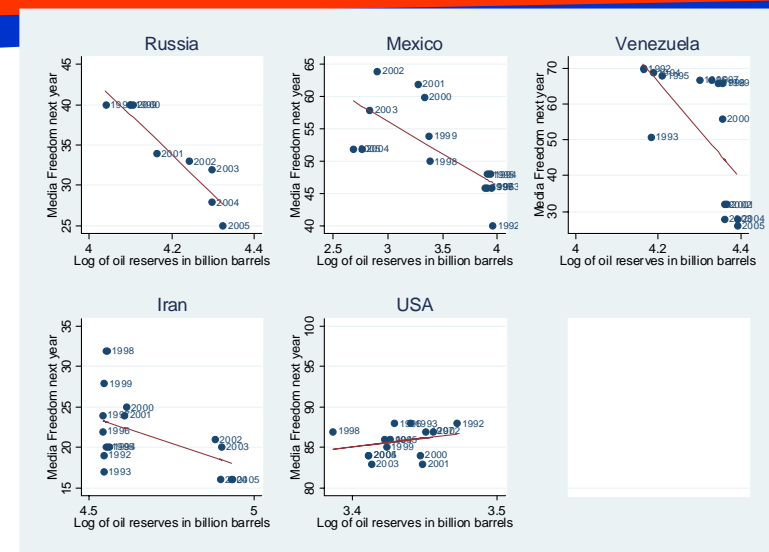
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Oil and media freedom



Guriev, Egorov, and Sonin (2009)

Individual countries



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Results

- ❑ Quantitatively substantial:
 - In autocracies, doubling the oil reserves reduces media by 2.8
- ❑ Effect of resources on media is large for non-democracies
 - Diminishes with higher democ
 - No effect for democ=10 (OECD countries)
- ❑ Robust:
 - Change oil reserves to production, including logpopulation (thus switching to per capita variables), adding controls such as gini, education etc,
 - Excluding any single country or any single region

Diversification

Goals and tools

- ❑ Why diversification?
 - makes a country less vulnerable to external shocks => more incentives for investment in physical and human capital
 - creates incentives to improve institutions (commitment device)
- ❑ Why not?
 - costs in terms of growth rates
 - costs in terms of elite's efforts
- ❑ Tools
 - 'vertical' industrial policies ('picking winners')
 - 'horizontal' policies
 - reserve accumulation
 - investment in infrastructure
 - investment in education
 - financial development

Progress in diversification

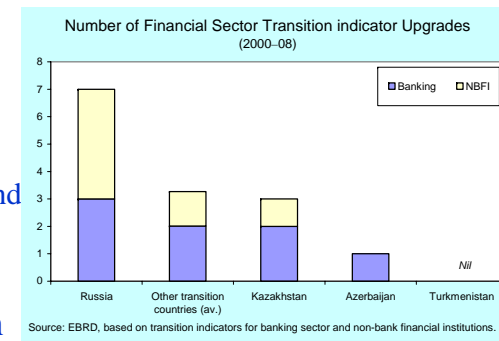
- ❑ A number of resource-rich countries made substantial progress in diversification
 - Chile: competitive agriculture and fishing (wine, salmon farming)
 - Malaysia: high-tech manufacturing integrated into South Asian and World production chains
 - Indonesia: medium-to-high-tech manufacturing, agriculture
 - Mexico: high-tech manufacturing based primarily on FDI by US firms
- ❑ Public investment increased in all countries over the commodity boom period
 - 3% to 4.5% of GDP in Russia; 3% to 6% of GDP in Kazakhstan; 2% to 10% of GDP in Azerbaijan
- ❑ Public spending on education:
 - 2.9 to 4% of GDP in Russia; 3.3 to 4.2% of GDP in Kazakhstan

Financial development

- ❑ helps to smooth effects of resource price volatility
- ❑ benefits non-resource sectors, which are more dependent on external finance
- ❑ shifts responsibility for business decisions to private sector
- ❑ helps to match entrepreneurial ideas and funding
- ❑ tools:
 - better regulation of banks and securities markets
 - deposit insurance
 - credit history bureaus
 - effective court system and enforcement

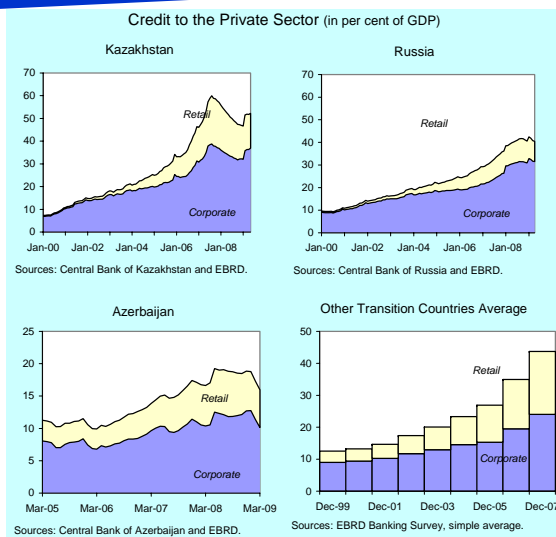
Financial development: reforms

- ❑ Structural reforms
 - Deposit insurance, credit bureaus, interest rates disclosure, revisions to legislation on collateral and bankruptcies
- ❑ In Russia, reforms outpaced the non-oil-rich transition country average



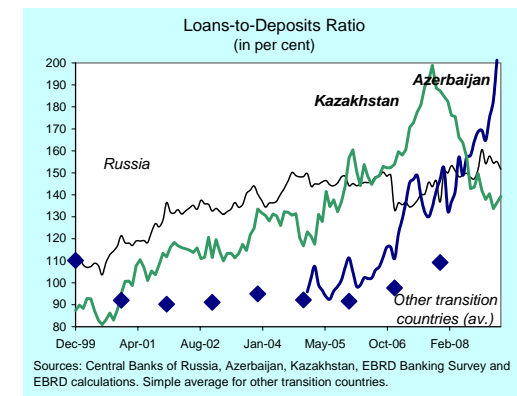
Financial development: outcomes

- ❑ Credit-to-GDP ratios have been growing rapidly



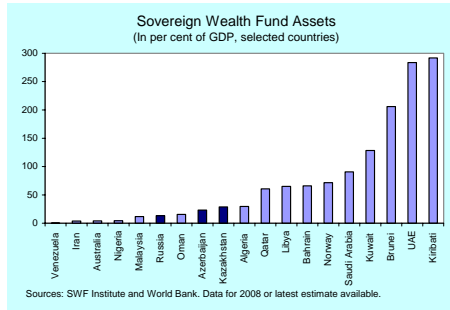
Financial development: outcomes

- ❑ Rapid growth made possible due to entry of foreign banks
 - Especially in Kazakhstan
- ❑ Loan-to-deposit ratios have been very high, well above regional average



Sovereign wealth funds

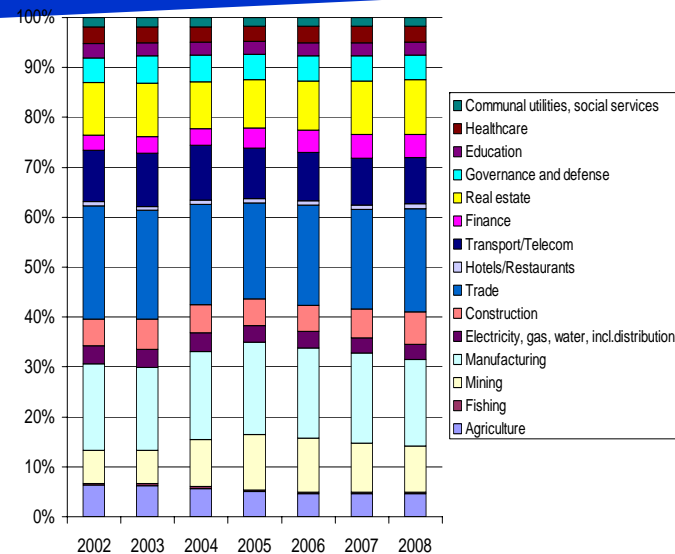
- ❑ Azerbaijan set up State Oil Fund in 1999
- ❑ Kazakhstan established National Fund in 2000
 - Peaked at 30% of GDP (the largest in relative terms)
- ❑ Russia: Stabilization Fund in 2004
- ❑ Turkmenistan is currently in the process of setting one up



Structure of the economy did not change

- ❑ Russian economy is as concentrated as before
- ❑ Herfindahl-Hirshman index of concentration for GDP shares of 15 sectors changed from 0.126 (in 2002) to 0.125 (in 2008)
 - HHI index measures weighted average sector share
 - HHI=0.125 implies Russian GDP is concentrated in roughly $1/0.125=8$ sectors (out of 15)
 - In the US, HHI=0.092 (hence $1/0.092=11$ sectors out of 15)

No diversification of Russian GDP in 2002-2008



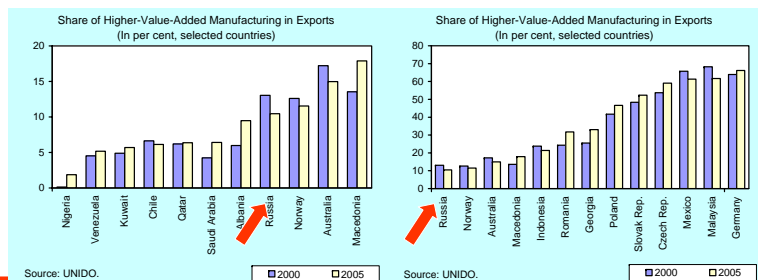
Not exactly news

- ❑ World Bank, 2004-05

	GDP share, Goskomstat, %	GDP adjusted share, %	
		by Britain's trade coefficients	by Denmark's trade coefficients
Industrial production	31.8	51.6	54.6
Electricity	2.8	2.8	2.8
Oil and gas	8.8	25.2	24.9
<i>Oil extraction</i>	6.5	12.9	12.9
<i>Petroleum products</i>	1.2	5.0	4.7
<i>Natural gas</i>	1.1	7.3	7.3
Coal	0.5	1.2	1.0
Ferrous metals	2.3	2.4	3.4
Non-ferrous metals	3.3	3.4	4.4
Chemicals	1.9	2.9	3.1
Machinery	5.1	5.3	5.2
Trade/services	30.8	11.0	9.4

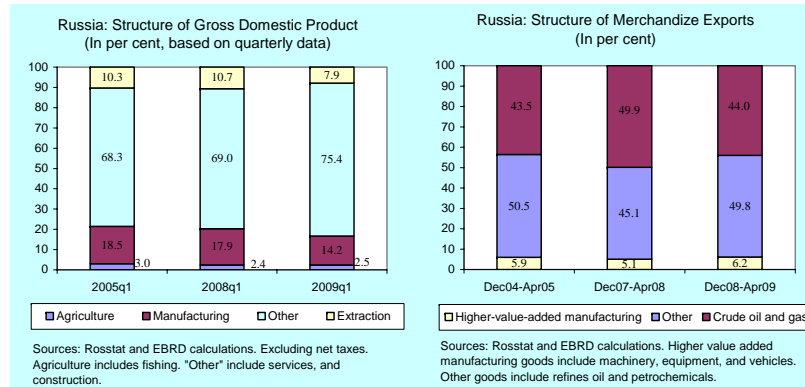
The Oil Price Cycle

- Measures of structure of output / exports are distorted by oil price effects
 - Directly (valuation)
 - Indirectly (incentives to produce and export)
- Even Norway, Malaysia lost positions in UNIDO "Industrial Competitiveness" indices during the boom
- Compare oil / output structure at similar points in oil price cycle



Compare 04-05 vs 08-09

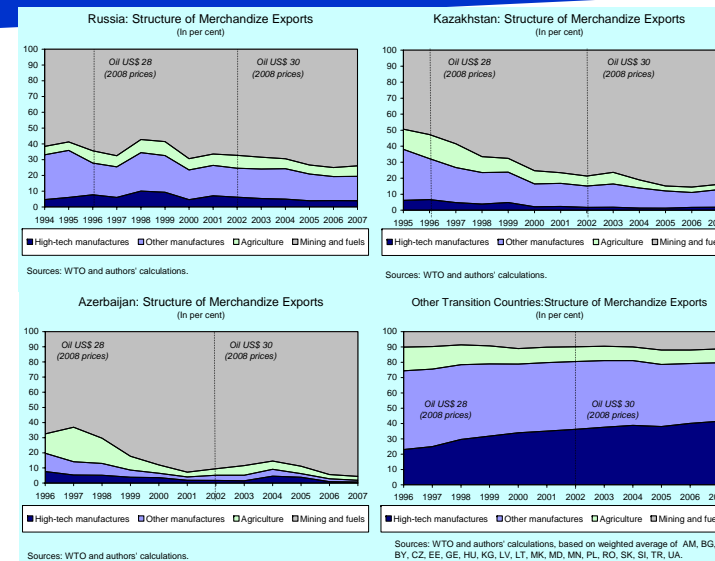
- Comparable periods in terms of average oil price:
 - Dec04-Apr05 and Dec08-Apr09
- No evidence of diversification, there may be slight decline in manufacturing



Export structure

- Exports structure suggests growing oil dependence in Kazakhstan and Azerbaijan
 - Partly reflects successful exploration, largely led by international firms (PSAs)
- In Russia, structure of exports was similar at similar points in the oil price cycle
- In other transition countries share of manufacturing exports has been increasing on average

Export structure, transition countries



Institutions

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Quality of Government: Indicators

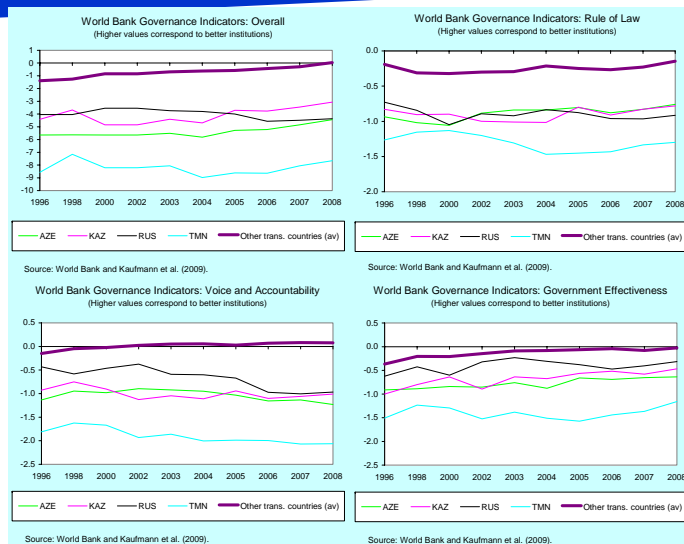
- ❑ World Bank Governance Indicators since 1996:
 - Rule of law
 - Voice and accountability
 - Effectiveness of government
 - Regulatory quality
 - Control of corruption
 - Political stability / absence of violence

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Quality of Government



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Quality of Government: Assessment

- ❑ from the start perceived quality of institutions in oil-rich countries was lower
- ❑ while transition country average has been steadily improving, institutions in oil-rich countries “peaked” in 1998-2000, at the bottom of the oil price cycle
- ❑ even though in recent year perceived quality of institutions in Kazakhstan improved and exceeded the “peak” of 1998, the gap with non-oil-rich countries remained wider than in 1996
- ❑ in all resource-rich countries gap widened more significantly in the case of rule of law and voice and accountability

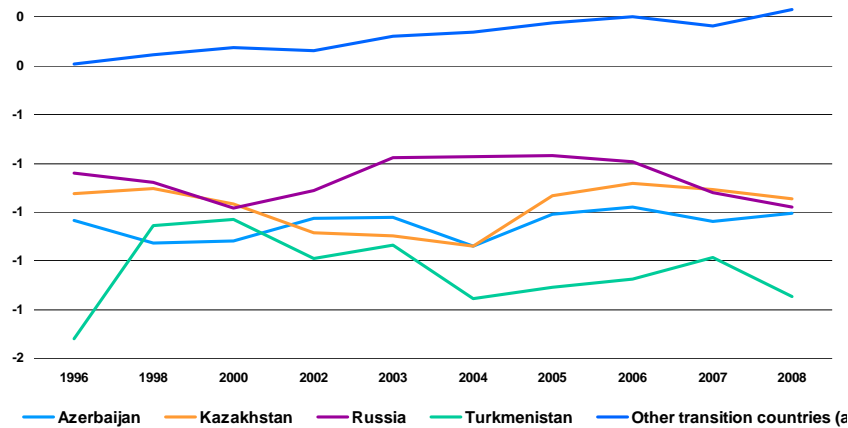
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Corruption

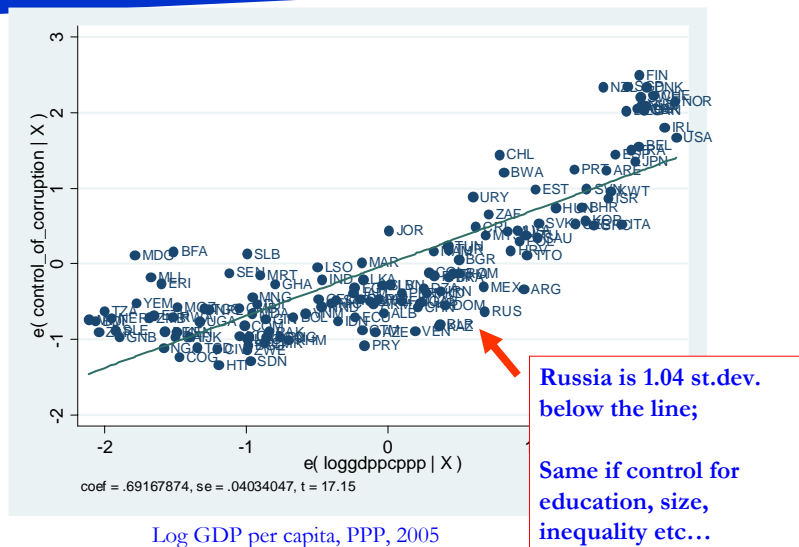
World Bank Governance Indicators - Control of corruption



Corruption vs per capita income

- ❑ Russia is as corrupt as countries that are 4 times as poor
- ❑ There has been virtually no progress in the last 10 years
 - 2000: Russia was one point (one standard deviation) more corrupt than countries with comparable level of development
 - 2007: this gap remained the same

A Russian problem...



Conclusion

- ❑ commodity revenues provide significant opportunities but may be bad for long-term growth
 - provide incentives to engage in rent-seeking rather than improve institutions
- ❑ success of diversification policies crucially depends on institutions
 - ... but improving these institutions is a particularly challenging task in oil-rich societies
- ❑ oil-rich transition countries have done well in terms of
 - macro policies
 - financial development
- ❑ diversification not achieved
 - Russia did not diversify