

CRIMINAL JUSTICE AND WEALTH INEQUALITY: How Much Freedom Can Money Buy in Russia?

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Summary

- Challenge:** How to measure whether the criminal justice system is more lenient towards wealthier citizens when wealth is unobservable.

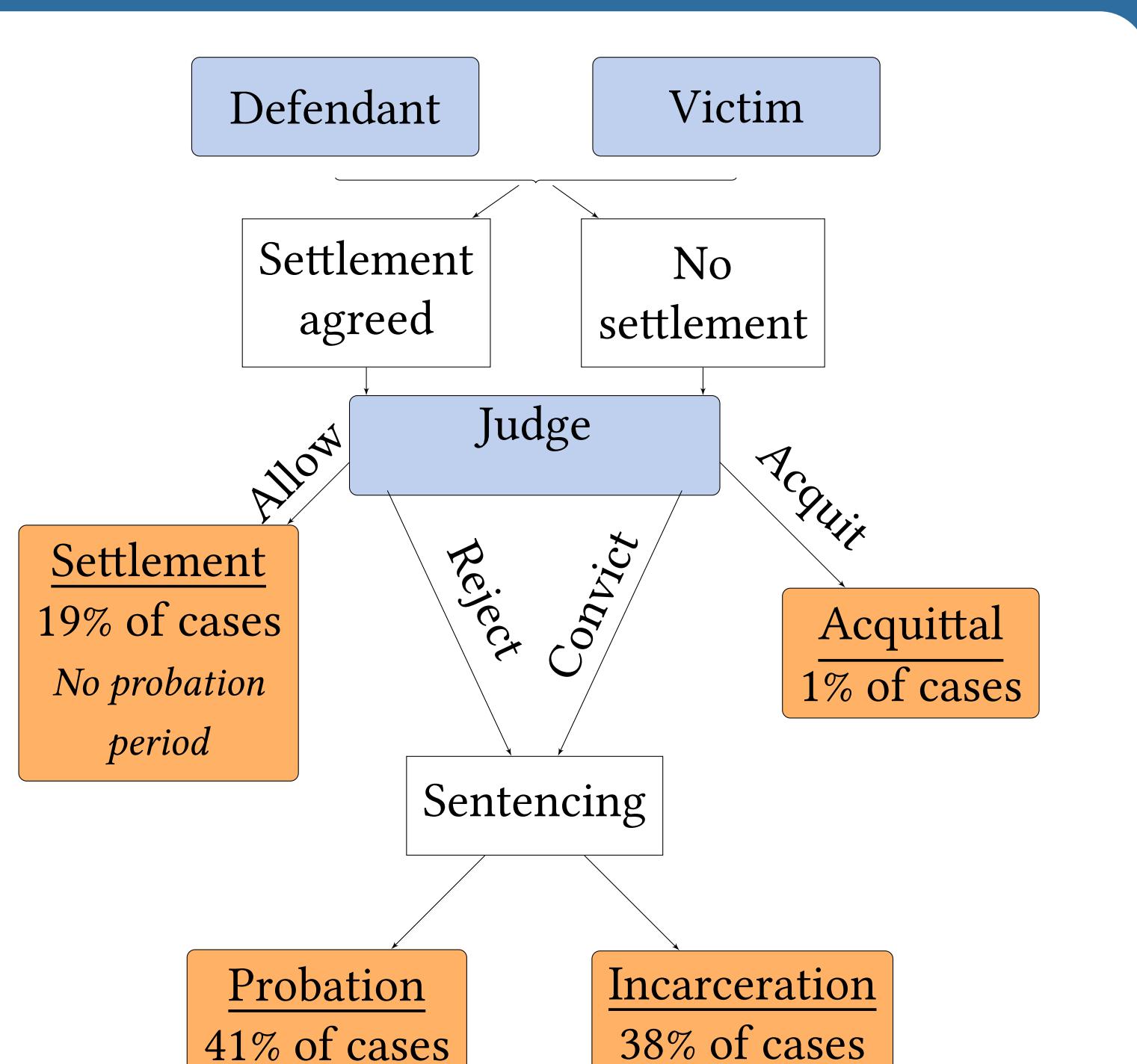
- Idea:**

- focus on criminal traffic accidents;
- use the information on the defendant's car as proxy to wealth;
- use other available proxies to wealth.

- This empirical study:**

- focuses on Russia, particularly interesting since it allows broad defendant-victim settlements;
- has information on all criminal traffic offences, but the information on cars is available only in a restricted subsample.;
- reveals substantial inequality due to settlements and beyond, both in the restricted sample and in the full sample of cases.

Court outcomes



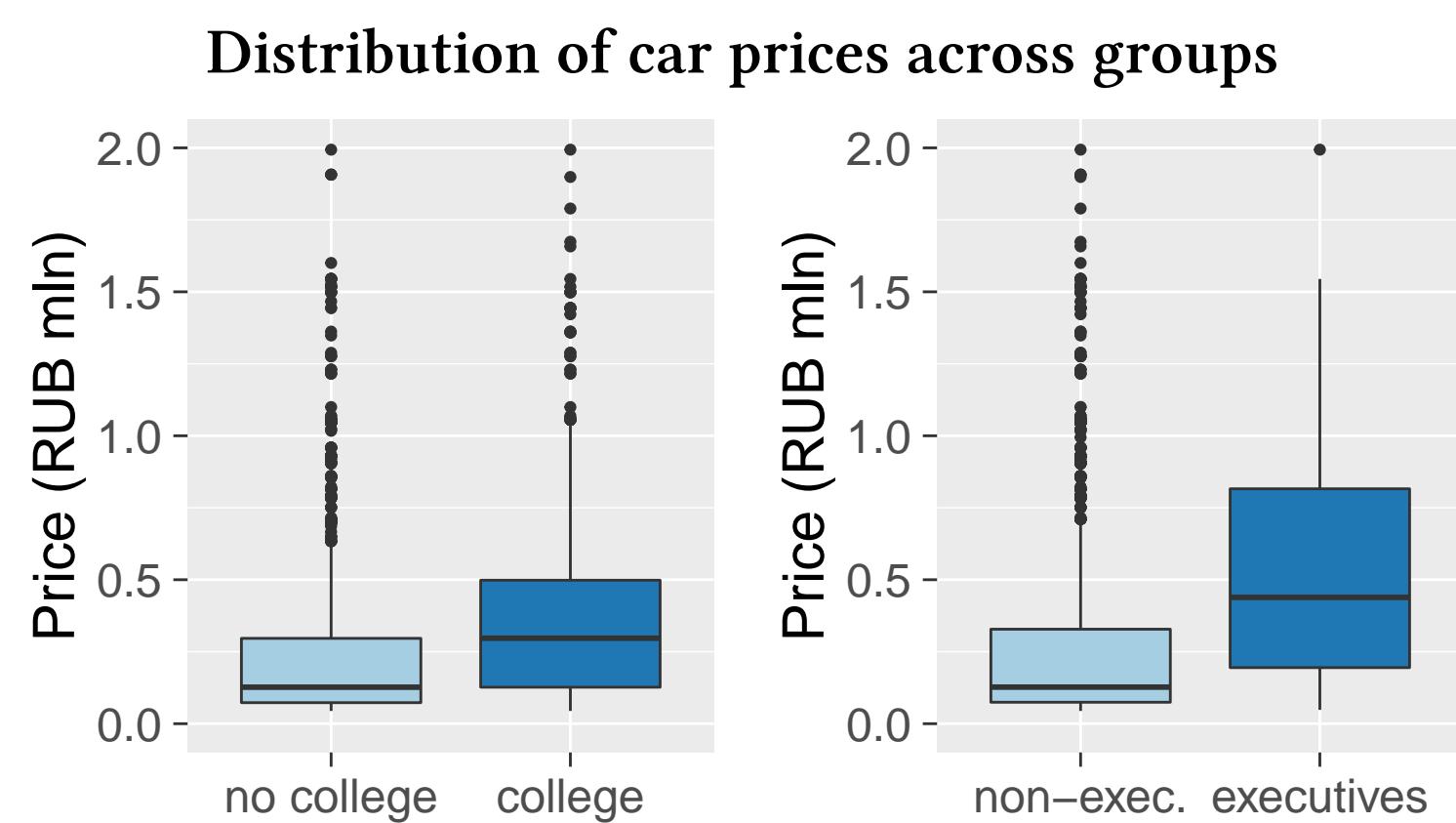
Descriptive statistics

2010–2013	all cases	with car prices
N. obs.	38910	3976
N. courts	2359	1157
Defendants:		
College grad. (%)	19.2	21.2
Executive (%)	3.3	3.2
Accident:		
Severe injuries (%)	28.7	26.1
One fatality (%)	63.6	66.6
Mult. fatalities (%)	7.7	7.3
Drunk driver (%)	48.5	47.8

Sources: official data, access provided by EUSP; online repositories of court rulings; car prices from the website for the secondary car market; Only personal cars (no trucks, buses, motorbikes)

Multiple proxies

Distribution of car prices in the sample		
Percentile	RUB mln	USD th
5	0.048	1.2
25	0.075	1.9
50	0.147	3.7
75	0.382	9.7
90	0.584	14.8
95	0.959	24.5



Econometric setup

- Multiple proxy approach as in Lubotsky and Wittenberg 2006; Black and Smith 2006

Main regression, x^* is unobservable wealth

$$y = \beta x^* + u$$

Proxy x_1 : car price (in RUB mln)

$$x_1 = x^* + \epsilon_1$$

Proxy x_2 : college degree (binary)

$$x_2 = \rho_2 x^* + \epsilon_2$$

Proxy x_3 : executive (binary)

$$x_3 = \rho_3 x^* + \epsilon_3$$

Controls Z have been partialled out.

$$\hat{\beta}_{1,j}^{IV} = \frac{cov(y, x_j)}{cov(x_1, x_j)} = \frac{\rho_j \beta var(x) + cov(\epsilon_j, u)}{\rho_j var(x) + cov(\epsilon_j, \epsilon_1)}$$

- If $cov(\epsilon_2, u) = cov(\epsilon_3, u) = cov(\epsilon_2, \epsilon_1) = cov(\epsilon_3, \epsilon_1) = 0$, then $\hat{\beta}_{1,2}^{IV} = \hat{\beta}_{1,3}^{IV} = \beta$:

⇒ use GMM

⇒ Test overidentifying restrictions (overid test)

- Moreover, if $cov(\epsilon_2, \epsilon_3) = 0$, then $\tilde{\rho}_2 = \frac{cov(x_2, x_3)}{cov(x_1, x_3)} = \frac{\rho_2 \rho_3 var(x) + cov(\epsilon_2, \epsilon_3)}{\rho_3 var(x) + cov(\epsilon_3, \epsilon_1)} = \rho_2$

$$\hat{\beta}_{2,3}^{IV} \tilde{\rho}_2 = \beta \Rightarrow \text{No need for car prices, can use full sample}$$

Main results

	Pr(settlement)	Pr(incarceration) for non-settled	
Restricted sample (with car prices)	Intercept $\hat{\beta}^{GMM}$ overid. test $\hat{\beta}_{2,3}^{IV} \tilde{\rho}_2$ N. obs.	0.048 (0.030) 0.489 (0.086) p=0.469 0.557 (0.106) 3986	0.499 (0.041) -0.325 (0.115) p=0.678 -0.268 (0.183) 3329

Full sample	$\hat{\beta}_{2,3}^{IV} \tilde{\rho}_2$	0.429 (0.042)	-0.257 (0.039)
	N. obs.	46087	37434

Standard errors are in parentheses, clustered at regional level (83 regions). Controls: severe injuries, multiple fatalities, drunk driving, criminal priors, other simultaneous crimes, presence of dependants. Regional fixed effects for the restricted sample, court fixed effects for the full sample.

- Wealthier defendants are significantly more likely to settle with victims.
- Moreover, even among the non-settled cases, they are more likely to get the probation, i.e., less likely to get incarcerated.
- Using $\hat{\beta}^{GMM}$ we can plot the expected outcomes for the bottom 5th percentile versus top 5th percentile of car price distribution.

