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Motivation

Corruption has become a popular topic of study

- causes of corruption
- economic consequences of corruption

Political consequences of corruption have been relatively well documented:

- lowers trust in political system and legitimacy of institutions (e.g. Anderson and Tverdova 2003, Seligson 2002)
- depresses turnout (e.g. Chong et al. 2011, Davis et al. 2004)
- reduces electoral support for incumbent (e.g. Ferraz & Finan 2008, Peters & Welch 1980, Welch & Hibbing 1997)

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Findings in the literature driven more by data availability than by theory.

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Focus on **corruption** and **vote choice** – understudied in developing countries compared to other consequences of corruption.

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Claim I: We explicitly posit two channels, through:

- personal exposure to corruption (e.g. were I or my family, friends, etc. asked for a bribe?)
- **perception** of corruption in society (e.g. are politicians currying favors for government contracts?)

Not first to use data on either channel, but first to posit the two channels **explicitly** and examine them **jointly**.

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• Personal exposure:

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Literature on corruption measurement shows the two only weakly related:

- exposure predicts perception of administrative & grand corruption equally badly
- change in experience not related to change in perception
- attitude toward bribing related to exposure, but not to perception

Evidence on Separability

Table: Partial Correlations between Experience and Perception

	Eurobarometer	Transparency International
Politicians and any bribe experience	0.02 (0.00, 0.04)	0.06 (0.04, 0.08)

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Politicians and any bribe experience	0.02	0.06
•	(0.00, 0.04)	(0.04, 0.08)
National politicians	-0.01	
	(-0.03, 0.01)	
Regional politicians	0.02	
	(-0.00, 0.04)	
Local politicians	0.04	•
	(0.02)	
Police	0.08	0.09
	(0.06, 0.10)	(0.07, 0.11)
Judiciary	0.03	0.06
	(0.01, 0.05)	(0.04, 0.08)
Health	0.16	0.18
	(0.14, 0.18)	(0.16, 0.20)
Education	0.10	0.10
	(0.08, 0.12)	(0.08, 0.12)

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Assumptions:

Individual-level

- certainty about own exposure (or that of immediate surrounding) inherently high
- certainty about societal corruption inherently low, since societal corruption unobservable

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Table: Predicted probability of a "don't know" response

	Eurobarometer	Transparency International
Corruption experience	0.033	0.033
	(0.032, 0.034)	(0.032, 0.034)
Corruption perception	0.077	0.116
	(0.076, 0.079)	(0.114, 0.118)

Assumptions at the **Population-level**:

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- certainty about exposure **stable** on average since bribe extortion slow-changing
- certainty about societal corruption varies based on information/signals coming from elites. May be higher:
 - when there are corruption scandals/resignations/revelations
 - during campaigns, when opposition amps up accusations
 - A new anti-corruption party emerges

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So, Claim II: Pocketbook corruption voting stable over time (if exists); sociotropic varies over time.

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Data **not** easy to find. Given our theory, we want:

- both experience and perception probed, as well as vote choice etc.
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But, we were able to find decent data from **Slovakia** as a first pass.

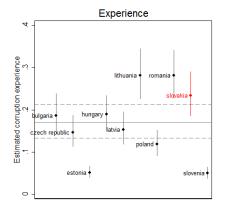
Slovakia a ${\bf good\ test\ case}$. Why? Corruption seems very salient in Central & Eastern Europe:

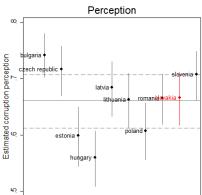
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Table: Corruption experience and perception in post-communist and other EU member-states

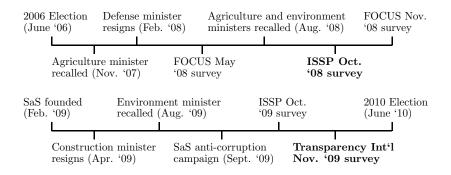
	Post-communist EU members	Other EU members
Eurobarometer		
Bribe Experience (in previous year)	.165 (.130, .207)	.045 (.035, .058)
Corruption perception (among national politicians)	.658 (.609, .704)	.584 (.537, .630)
Transparency International		
Bribe experience (in previous three years)	.244 (.217, .274)	.081 (.071, .092)
Corrupion perception (among political parties)	.853 (.827, .873)	.744 (.700, .779)

And Slovakia pretty much the **median** country in the region:





Data and Timeline



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Estimation

Binary vote choice using standard logit:

$$Pr(\textit{vote}_i = 1) = \frac{1}{1 + e^{-\mathbf{X}_i \beta}},$$

 X_i : corruption exposure; perception; previous vote choice; demographics; geography; policy issues; ideology

Multinomial vote choice using nested logit:

Probability of choosing a nest and a party,

$$P_{nk} = \frac{e^{\mathbf{X}_{i}\beta + \lambda_{k}I_{nk}}}{\sum_{k \in K} e^{\mathbf{X}_{i}\beta + \lambda_{l}I_{nl}}} \frac{e^{\frac{\mathbf{Z}_{ni}\gamma}{\lambda_{k}}}}{\sum_{m \in N_{k}} e^{\frac{\mathbf{Z}_{mi}\gamma}{\lambda_{l}}}},$$

 $\lambda_k I_{nk}$: expected utility to individual i from each party n in a nest k

 X_i : corruption exposure; perception (β_k vary over nests)

 \mathbf{Z}_{ni} distance on issues and ideology of each individual to a party; previous vote choice (γ vary over each party)



Main Results I: Pocketbook Effect

• Pocketbook effect present and stable across time

Table: Marginal effect of corruption experience

	Marginal effect	Standard error	One-tailed <i>p</i> -value	Two-tailed <i>p</i> -value
May 2004 TI	-0.078	0.053	0.072	0.143
March 2006 TI	-0.070	0.029	0.009	0.018
October 2008 ISSP	-0.130	0.066	0.024	0.048
November 2009 TI	-0.087	0.046	0.028	0.056

Main Results II: Sociotropic Effect

Sociotropic effect varies over time

Table: Marginal effect of corruption perception

	Marginal effect	Standard error	One-tailed <i>p</i> -value	Two-tailed <i>p</i> -value
May 2008 Focus	-0.089	0.101	0.189	0.378
October 2008 ISSP	0.000	0.133	0.500	1.000
November 2008 Focus	-0.041	0.126	0.372	0.743
June 2009 Focus	-0.232	0.079	0.002	0.004
October 2009 ISSP	-0.270	0.114	0.009	0.017
November 2009 TI	-0.308	0.094	0.001	0.002

Pocketbook Corruption Voting: Mechanism?

 Punishing national incumbent when victimized and local incumbent from the same parties

Table: Co-partisanship of local and central government and pocketbook corruption voting

	Pocketbook Effect	Sociotropic Effect
Mayor from incumbent party	-0.221*	-0.063
	(0.133)	(0.252)
Mayor from an opposition party	-0.083	-0.087
	(0.077)	(0.172)
Mayor from senior incumbent party (Smer)	-0.251**	-0.011
·	(0.126)	(0.287)
Mayor from any other party	-0.100^{*}	0.087
	(0.054)	(0.146)

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But mechanism **not** through perception: correlation between experience and perception **not higher** in co-partisan towns (.145) than in opposition towns (.163)

- Scandals do not seem to have an independent effect at individual level
- The dependent variable is the vote for incumbent

Table: Effect of corruption perception and scandals, June 2009

	(1)	(2)
Corruption perception	-0.430** (0.164)	: *c
Environment ministry scandal		-0.187 (0.173)
Construction ministry scandal		-0.214 (0.152)

^{*} p < 0.1, ** p < 0.05, *** p < 0.01. Robust standard errors in parentheses.

Scandals vs. new anti-corruption party?

Based on 116 aggregate public opinion polls, we construct monthly data and run an auto-distributed lag model:

$$\begin{aligned} \text{Vote share}_t &= \alpha \text{Vote share}_{t-1} + \sum_k \beta_k \text{Scandal}_k + \gamma_1 \text{SaS entry} + \gamma_2 \text{SaS campaign} \\ &+ \sum_i \delta_j X_{t,j} + \epsilon_t \end{aligned}$$

Table: Short-run and long-run effects of scandals and new party entry

	Coalition		Sr. Incumbent	
	Short Run	Long-Run	Short Run	Long Run
Total effect of scandals	-0.004	-0.008	0.007	0.031
	(0.009)	[0.24]	(0.012)	[0.28]
Total effect of SaS	-0.032***	-0.060***	-0.032***	-0.153***
	(0.005)	[37.12]	(0.008)	[14.93]
Difference between total effects	-0.028***	-0.052***	-0.039**	-0.184**
	(0.013)	[4.06]	(0.015)	[6.62]

^{*} p < 0.1, ** p < 0.05, *** p < 0.01. Robust standard errors in parentheses. F-statistic in brackets.

Scandals or new anti-corruption party?

We also coded monthly media coverage of corruption and ran a structural break model:

$$\mathsf{Media\ coverage}_t = \beta_1 \mathsf{Scandals} + \beta_2 \mathsf{Elections} + \beta_3 \mathsf{SaS\ entry} + \sum_{i}^3 t^j + \epsilon_t$$

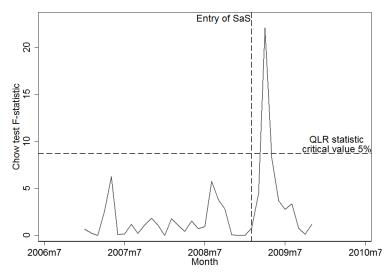
Table: New party entry as a structural break in media coverage of corruption

Media coverage
0.105**
(0.050)
0.080***
(0.022)
`0.248 [*] **
(0.053)
-0.031
(0.081)
$-0.029^{'}$
(0.030)
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^{*} p < 0.1, ** p < 0.05, *** p < 0.01. Robust standard errors in parentheses.



• No other structural breaks in media coverage of corruption



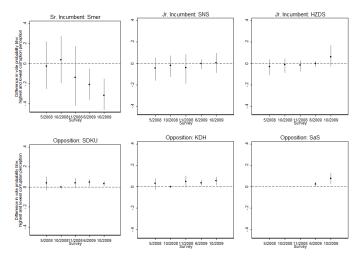
Some evidence of reduction in voter uncertainty

Table: Proportion of "Can't Choose" answers about corruption perception in 2006 and 2009

	Share in 2006	Share in 2009	Difference
National Politicians	0.287	0.241	-0.046
Local Politicians	0.277	0.248	-0.029
Regional Politicians	0.280	0.224	-0.056
Education	0.285	0.253	-0.033
Courts	0.290	0.270	-0.020
Police	0.293	0.262	-0.031

Disaggregated Vote Choice

• Senior incumbent party mainly punished



Robustness

Results are also robust to:

- repeated sampling and different measurement of exposure and perception
- potential endogeneity of perceptions of corruption
- potential omitted variables using Altonji et al. ratios
- potential selection problem of who turns out to vote
- potential over-report of incumbent vote
- potentially problematic wording of the bribe item

To further test for robustness, we conducted an ${f original\ experiment\ in\ Bulgaria}$ in August 2011

Bulgaria Experiment

[MALE/FEMALE NAME = MATCHING RESPONDENT GENDER] lives in a medium-sized city in Bulgaria. Last month, [NAME] [INSERT1/INSERT2]. The mayor of that city is running for reelection, and in the time since he was originally elected economic conditions in the city have [CONDITIONS1/CONDITIONS2].

 ${\sf INSERT1} = {\sf had}$ to spend half of his monthly salary to speed up the approval of permits for his business

 $\label{eq:INSERT2} \textbf{INSERT2} = \textbf{heard that several city officials have taken bribes in exchange for government contracts}$

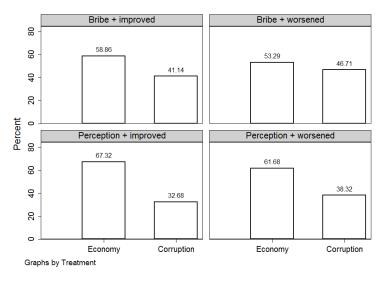
 ${\sf CONDITIONS1} = {\sf improved}$

CONDITIONS2 = worsened

Would [MALE/FEMALE NAME]'s vote be more affected by the changes in the city's economy or concerns related to corruption?

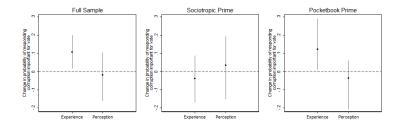
Bulgaria Results I

Corruption perceived more important for vote choice after pocketbook prompt than after sociotropic prompt



Bulgaria Results II

Own corruption exposure activates this "pocketbook voting," and not perception



We hope to push for a research agenda. Some ways forward:

• more/better data, more countries, re-tests

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 - survey experiments: new paper with survey experiments in Sweden and Moldova

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- effects of individual-level heterogeneities?
- effects of other known moderators:
 - clientelism
 - trade-off of corruption with pork/competence

Replication in Sweden and Moldova

- Explicitly compare a "low corruption" country (Sweden) with a "high corruption" country
- Motivation: Can we find a "no corruption" and "yes corruption" equilibrium?
- Changed experiment so there is a "positive" corruption prompt as well for both pocketbook and sociotropic corruption

Questions for Sweden vs. Moldova Experiments

Does corruption voting differ in high and low corruption countries?

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- Does corruption voting differ when economy is good or economy is bad in high and low corruption countries?

Questions for Sweden vs. Moldova Experiments

- Does corruption voting differ in high and low corruption countries?
- Does corruption voting differ when economy is good or economy is bad in high and low corruption countries?
- Is sociotropic corruption or pocketbook voting more prevalent in high or low corruption country?

Swedish Experiment

[MALE/FEMALE NAME = MATCHING RESPONDENT GENDER] lives in a medium-sized city in Sweden. Last month, [NAME] [INSERT1a/ INSERT2a/ INSERT1b/ INSERT2b]. The president of the local city governing board now runs for re-election, and since he was first elected, the local economy of the town where Anna lives has [CONDITIONS1/CONDITIONS2].

INSERT1a: a civil servant of the local public administration suggested, much to Anna's surprise, that she pay a bribe to speed up the permit her business needed.

INSERT1b: a friend told her that she might have to pay a bribe to a civil servant of the local public administration to speed up the permit Anna's business needed. She was relieved to learn that this was not the case.

INSERT2a: Anna heard that several civil servants of the local public administration had taken bribes in exchange for public business contracts.

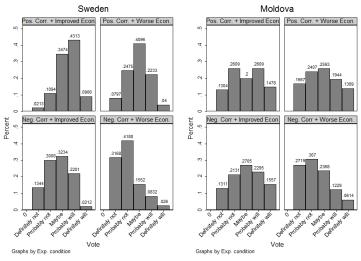
INSERT2b: Anna heard that the president of the local city governing board had made fighting corruption an important issue and that several civil servants had been fired for taking bribes in exchange for public business contracts.

CONDITIONS1 = improved

CONDITIONS2 = worsened

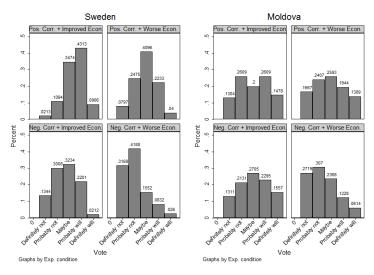
Sweden vs. Moldova Results I: Magnitude of Response

- Magnitude of response larger in Sweden than Moldova
- · Regardless of whether economy is bad or good



Sweden vs. Moldova Results II: Economic Conditionality

- Corruption always punished in Sweden
- In Moldova, corruption only punished when economy is bad



Sweden vs. Moldova Results III: Sociotropic vs Pocketbook

- In Sweden, sociotropic corruption more important
- In Moldova, pocketbook corruption more important

Table 3: Corruption Voting in Sweden and Moldova

	Sweden	Moldova	Cross-Country Diff.
Economy = better Pocketbook effect Sociotropic effect	-0.561*** -1.000***	-0.057 0.124	-0.505*** -1.124***
Within-Country Diff.	0.438**	-0.180	0.619***
Economy = worse Pocketbook effect Sociotropic effect	-0.520*** -1.123***	-0.601*** -0.400***	
Within-Country Diff.	0.604***	-0.201	0.805***
Interaction effect Pocketbook effect Sociotropic effect	$0.042 \\ -0.123$	-0.544*** -0.524***	
Within-Country Diff.	0.165	-0.021	0.186

Towards a Larger Theory: Yes Corruption vs No Corruption Paths?

- Yes Corruption Path
 - Corrupt politicians normal feature of life
 - Corruption not punished if economy is performing
 - Corruption only punished when symptomatic of larger "incompetence"
 - Sociotropic corruption not "news" Personal exposure elicits more anger
 - Corrupt politicians not deterred from running or behaving in corrupt manner

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No Corruption Path

- · Corrupt not normal feature of life
- Corruption punished harshly in all cases
- Corrupt politicians deterred from running (selection)
- Politicians avoid corrupt behavior/clamp down on corrupt behavior (moral hazard)

Thank you!