Wages VS Informal Payment in police: comparative study of Bulgaria, Kazakhstan, Latvia and Russia

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Introduction

1. Problem and motivation
2. Research goal and tasks
3. Literature review
4. Data and methodology
5. Results
6. Conclusions

1. Problem and motivation

- Policy makers, public authorities and police officers spoke about the same problem – low wage rates of policemen, reforms started in Russia and Kazakhstan.

What defines wages in Police?

- From broad literature and mass media we know that both conventional and unconventional economic activities take place in police.

Do low wages stimulate the positive attitude to corruption?

- Great number of empirical and theoretical publications cover police corruption (Andvig, J. C., & Fjeldstad, O. H. (2008), Newburn, T., & Webb, B. (1999), Sherman, L. W. (1978), Knapp Commission. (1972)) but almost all are based on western police data. In developed societies police corruption is more often a deviant activities of single individuals [Porter, Warrender 2009]. In transition societies police corruption is a widespread, systematic and persistent activity [for details see Dubova, Kosals 2012].

What determines corruption approval by policemen in post communist societies?

2. Goals and tasks

The **main aim** of the research is to disclose wage factors in police and identify what defines corruption approval by policemen in 4 countries .

The tasks are:
- To trace the wage distribution among policemen and disclose its determinants.
- To identify proxy for corruption approval
- To reveal the factors for corruption preferences

3. Literature review

Two blocks of literature:

1) The first block contains papers on wage setting, wage factors, wage distribution as well as fair payments. This part of literature is much bigger and dates to 1950s. Mincer (1974), Becker (1962), Rosen (1986)

2) The second block comprises from all sort of informal economic behavior of policemen: conventional and unconventional. This part of literature is less thicker and dates to early 1960s. Becker & Stigler (1974), Sherman (1978, 1985), O'Connor (2005), Punch (2000, 2003), Van Reenen (1997)

3. Literature review

Empirical research on police formal and informal payments is not so rich. There are several country studies that demonstrates very interesting and different results.
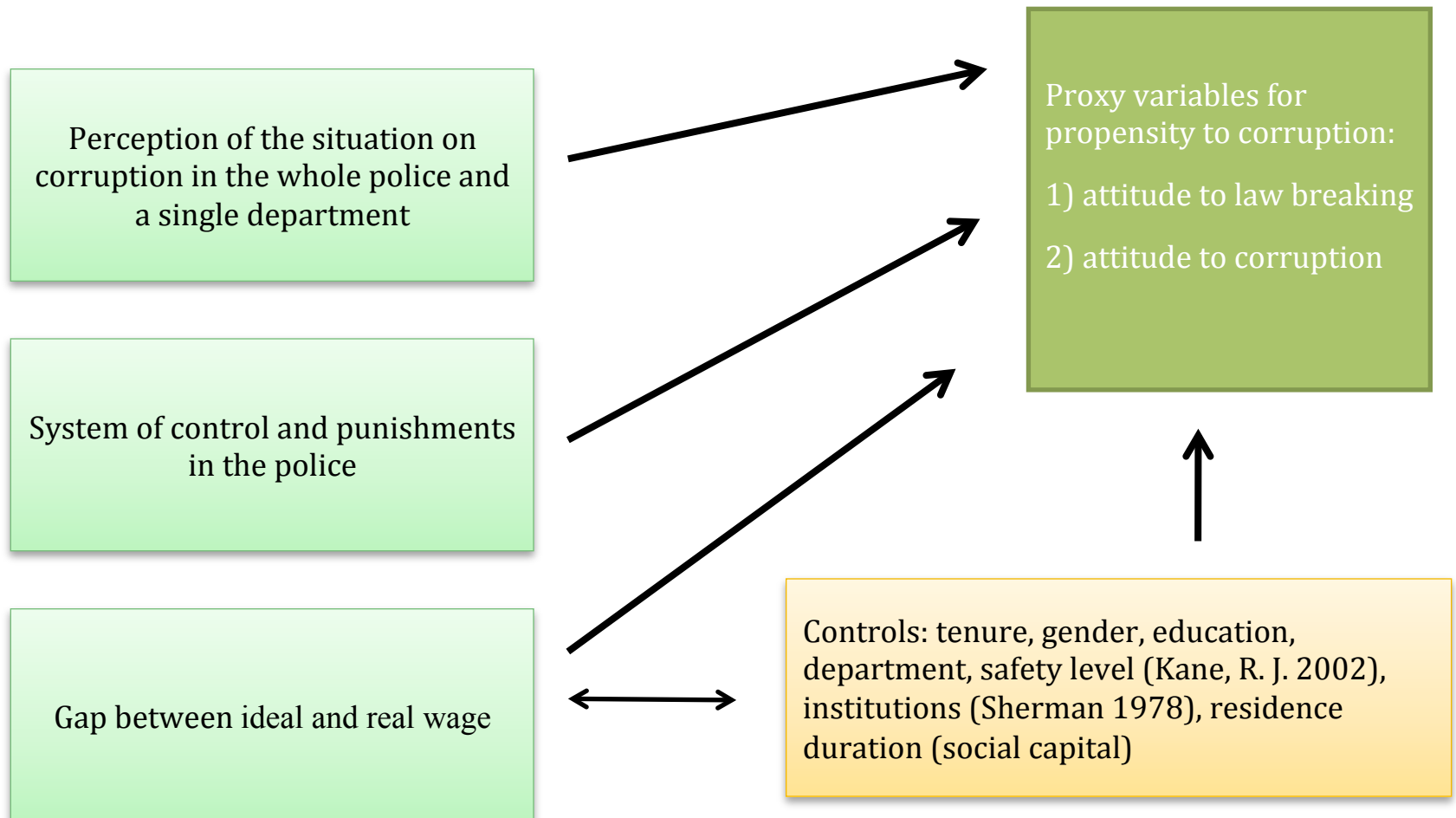
1. Bayley, 1996 (The Police and Political Development in Europe)
2. Zvekic, 1998 (Countries in transition)
3. Darryl D'Monte, 2000 (Asian societies and corruption)
4. Beck & Ruth ,2002 (Attitudes to Corruption Amongst Russian PoliceOfficers and Trainees)
5. Tymoty Frye, 2002 (Police as an obstacle for business)
6. Shleifer & Treisman, 2004 (Normal Country)
7. Robertson, 2004 (Police reform in Russia)
8. Wallace and Latcheva, 2006 (Corruption, Trust in Public Institutions and the Informal Economy in Transition Countries of Central and Eastern Europe)
9. Ayling and Shearing, 2008 (Australia case of police corruption)
10. Gerber, Mendelson, 2008 (Russian case of public abuse by police)
11. Bayley, D. H., & Perito, R. (2011). *Police Corruption: What Past Scandals Teach about Current Challenges*
12. Lee, H., Lim, H., Moore, D. D., & Kim, J. (2013). How police organizational structure correlates with frontline officers' attitudes toward corruption

3.1) Wage setting in police and factors

- Wages in police are regulated by the state and budget sector rules.
- The wage of a policeman usually consists of:
  - Formal basic payment according to the position and ranking;
  - Benefits for number or years;
  - Benefits for scientific position and rank;
  - Additional payments (surplus) for good work, difficulties and etc.

The hypotheses for the wage determinants are coming from Mincerian wage equation (education level and tenure), human capital theory (position and former experience with public sector, N years of living in the same city), theory of compensating differences (level of risks among departments)

3.2) Corruption approval determinants

Perception of the situation on corruption in the whole police and a single department

System of control and punishments in the police

Gap between ideal and real wage

Proxy variables for propensity to corruption:

1) attitude to law breaking

2) attitude to corruption

Controls: tenure, gender, education, department, safety level (Kane, R. J. 2002), institutions (Sherman 1978), residence duration (social capital)

3.2 Hypotheses for corruption approval

- *H1.We suppose that greater difference between "fare wage" (or ideal) at the position occupied and real wage would increase propensity to corruption.*

  - Criminological works on police deviance propose that so-called "bad apples" commit it for personal gain (Newham 2002; Haarr 1997; Herbert 1998, etc.). Bribery is expected to be an outcome of inadequate pay Van Reenen (1997). A. Mas (2006) finds on the ground of police organization "employees are less satisfied not just with low pay, but with pay below a reference or "fair" wage".

- *H2. We assume that strong system of sanctions for corruption would decrease propensity to corruption among policemen.*

  - Economic theory of crime postulates that crime (including corruption) is a rational act and actors calculate costs for committing it: gravity of possible punishment and probability to be caught (Becker & Stigler 1974).

- *H3. We suppose that higher group approval of corruption and higher spread of corruption within police would increase individual support for corruption.*

  - Newcomer becomes "infected" when he get involved in the informal system of deals, inducements, collusion and understandings among deviant officers as how the corruption is organized, conducted and rationalized (Sherman 1978, 1985; O'Connor 2005; Stern 1962; Punch 2000, 2003; Stoddard 1968).

4. Data and methodology

Data:

Surveys of policemen conducted in 2011-2012 in Bulgaria, Kazakhstan, Latvia and Russia(each country sample consists of 450-500 respondents). Total sample size 1854 police respondents

Empirical results:
- Descriptive statistics
- Wage determinants (OLS regression for 4 countries and pulled sample)
- Bribery approval probability (marginal effects of probit regressions for 4 countries and pulled sample)

4. Sample descriptive statistics

	Bulgaria	Kazakhstan	Latvia	Russia
Average age of policemen	39.98	32	35.8	33.3
% of females employed	13.1	28.7	39.1	23.1
Average working hours per day	9.7	11.9	9.6	9.9
% with tertiary education	20.5	84.7	20.05	25.1
% of high-rank positioned	11.1	28.5	25.3	20.0
Average tenure in police	13.7	8.9	12.4	7.9
% of those working in the capital city of the country	20.3	22.1	42.2	8.9

4. Descriptive statistics: Monthly and yearly wage rate in police across the world

Country	Coefficient PPP	Monthly wage in local currency	Monthly wage in dollars PPP	Yearly wage in local currency	Yearly wage in dollars PPP
Australia	0,85[*]	4499	5293	53990	63518
USA	1[*]	4606	4606	55270	55270
Germany	0,81[**]	3141	3878	37692	46533
UK	0,68[***]	2438	3586	29259	43028
Hong Kong	5,49[*]	18810	3426	225720	41115
Canada	1,22[*]	4162	3412	49946	40939
Bulgaria	*0.67[****]*	*956,7*	*1428*	*11480*	*17135*
Russia	*15.66[****]*	*18860*	*1204*	*226321*	*14452*
South Africa	5,39[*]	5833	1082	70000	12987
Latvia	*0.36[****]*	*335,7*	*932,6*	*4028,6*	*11191*
Kazakhstan	*110.32[****]*	*65585*	*594,5*	*787023*	*7134*

[*] Коэффициент за 2012 год
[**] Коэффициент за 2009 год
[***] Коэффициент за 2011 год
[****] Коэффициент за 2010 год

Dependent variable: lnwage (corrected for minimum living spending in the region and for dollars PPP)

Independent variables:

- Gender
- Tenure in police
- Tenure in police squared
- Higher education
- Working hours
- Working experience (3 dummies)
- Number of years living in the city
- Level of position (3 dummies)
- Departments (dummies)

6. Results: lnwage determinants

	Russia	Kazakhstan	Bulgaria	Latvia	Pulled countries
Gender	-0.0456	0.0649*	0.0575	0.0518***	0.0508**
Tenure	0.0275*	0.0301***	0.019***	0.00785*	0.0211***
Tenure2	-0.0007	-0.0007*	-0.0003*	-0.0001	-0.0005***
Tertiary education	0.111	-0.00698	0.237***	0.0581*	0.114***
Low rank position			Basic category		
Middle rank position	0.164*	0.142***	0.0980***	0.155***	0.134***
High rank position	0.441***	0.210***	0.192***	0.230***	0.258***
Working hours	0.0014*	0.0003	0.0002	0.000202**	0.0003***
No experience			Basic category		
Experience in private sector	0.0842	-0.00164	-0.0552*	-0.0131	-0.0012
Experience in public sector (same services)	0.0489	-0.0674	0.0479*	-0.0364**	0.0081
Department: road police, land police, patrol			Basic category		
Department: investigation	-0.0049	-0.0362	0.111***	-0.00417	0.0214
Department: internal services	-0.0408	0.0541	0.0377	0.0709***	0.0278
Department: security	-0.0183	0.0600	0	0.0654***	0.0553
N years living in the city	0.0067**	-0.0016	-0.0016*	-0.0007	0.0004
Russia					Basic category
Kazakhstan					-0.221***
Bulgaria					-0.726***
Latvia					0.219***
Constant	6.151***	5.934***	6.723***	6.516***	6.552***
N	260	291	339	396	1286
R2	0,42	0,31	0,52	0,49	0,67

Dependent variables:

- Attitude towards system where corruption is im-/possible: 0-prefer the system where breaking the law is allowed; 10-prefer the system where rules are fulfilled

- Attitude to corruption declaration by colleague (i.e. support for corruption): 1-approve such reports; 0-disapprove.

Main Tested Independent variables:

1. Delta between "fare wage" and real wage

2. Control of corruption and criminal behavior from the superiors: 1-there's control

3. Change of control over the last year: 1-control enhanced

4. Opinion on attitude within police to bribes: 1-positive

5. Opinion on spread within policemen of different forms of corruption : 1-no, 2-from time to time, 3-highly spread

Control variables:

- Tenure
- Department
- Gender
- Education
- Supervision
- Previous work experience
- Job satisfaction
- Institutional precondition (business without personal relations with authorities)
- Level of safety in the area
- Duration of residence in the area
- Country dummies (for pulled sample)

6. Results: Descriptive statistics on dependent and main independent variables

	Do you approve your colleague who declared corruption in your department?	System preference (strict enforcement of laws)	Is majority of your department consider acceptable that policemen take bribery	Control for bribes	Difference between ideal and real wage in US $ PPP
Yes	76.4 % (max 93.8 Bulgaria)	72.0 (max Latvia 82.3%)	16.9 % (max 32,5% Kazakhstan)	33% (max 38% Bulgaria)	1441,3 (Russia) 1105,2 (Bulgaria)
No	23.6 % (max 47,4% Kazakhstan)	27.3 (max 39.5 Bulgaria)	83.% (max 94,9% Bulgaria)		883,2 (Latvia) 740,7 (Kazakhstan)

6. Results: determinants of attitudes toward corruption in Bulgaria, Kazakhstan, Latvia and Russia (marginal effects from probit regression, pulled sample)

	Approval of bribe declaration		Attitude to a system (strict enforcement of laws)	
	Model 1	Model 2	Model 1	Model 2
Gender	0.04	0.120	**-0.231*****	**-0.315*****
Tenure	0.02	0.06	0.04	0.04
Education (1=higher)	-0.16	-0.11	**0.190***	0.229*
Supervision (basic-no subordinates)				
Up to 10	-0.1	-0.21	-0.09	-0.12
11-30	0.17	0.1	0.008	0.003
More than 30	-0.13	-0.22	-0.01	-0.07
Previous experience (basic-no exp.)				
Private sector	0.28	0.26	-0.04	0.007
Public/state sector	**0.339***	**0.336***	-0.07	0.02
Type of department (basic –grassroots)				
Department: investigation	0.13	0.19	-0.04	**-0.220****
Department: internal services	**0.162***	**0.233*****	0.03	-0.09
Department: security	0.43	**0.528***	0.07	-0.01
States (basic – Russia)				
Latvia	**0.240*****	-0.09	0.0006	**0.816***
Kazakhstan	**-0.531*****	**-0.553*****	**-0.296*****	**-0.388****
Bulgaria	**0.811*****	**0.545*****	**0.242*****	**0.911****

6. Results: determinants of attitudes toward corruption in Bulgaria, Kazakhstan, Latvia and Russia (marginal effects from probit regression, pulled sample)

	Approval of bribe declaration		Attitude to a system (strict enforcement of laws)	
	Model 1	Model 2	Model 1	Model 2
Ideal-Real Wage	-	**-0.0550*****	-	**0.167***
Job satisfaction	-	0.054	-	0.051
Control increased	-	-0.14	-	**0.211***
Punishment for bribes	-	0.16	-	-0.09
Acceptance of bribes	-	**-0.342***	-	**-0.286***
R²	0.14	0.16	0.02	0.03

7. Conclusions on wage determinants and wage differences

The main determinants for higher wages in police are:

- gender differences,
- tenure (+), tenure2 (-),
- Return to Education only in Bulgaria and positive effect of working hours only for Latvia.
- Return to high rank in all countries,
- Regional difference in Russia and less in Kazahstan
- Department differences in Bulgaria and Latvia

Policemen are better paid in Latvia in comparison to Russia and less paid in Bulgaria and Kazakhstan
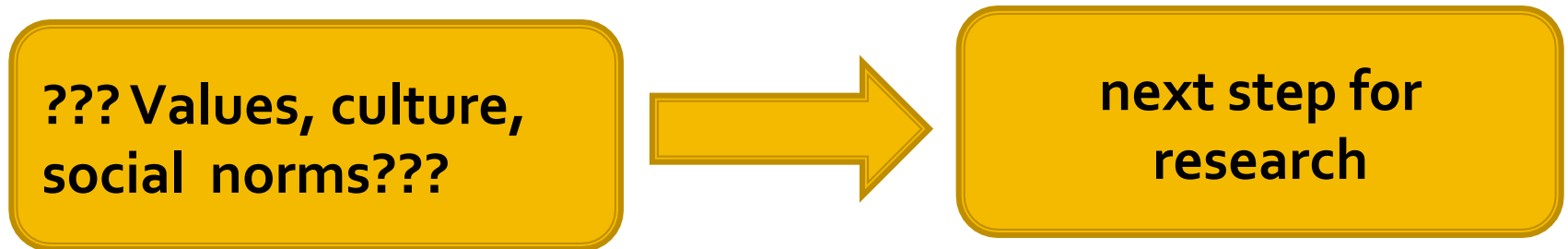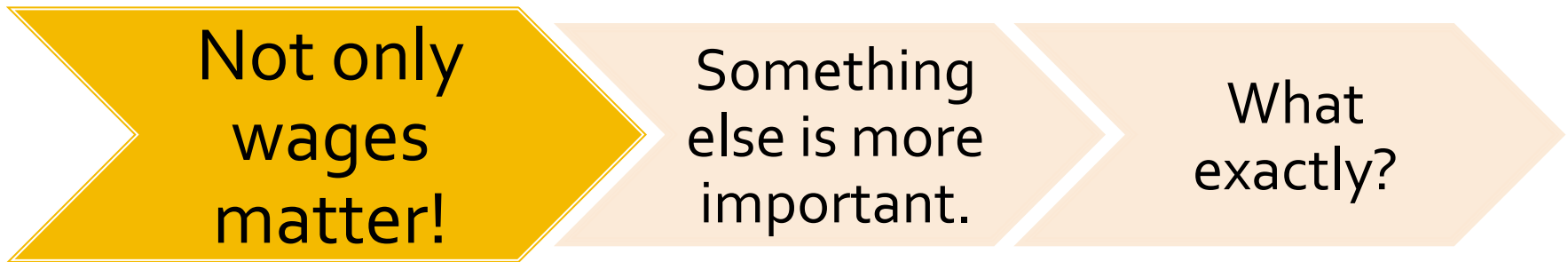
7. Conclusions on corruption approval

All in all in Bulgaria and Latvia policemen will be more likely approving bribe declaration than in Russia, while in Kazakhstan less likely.

The bigger the gap between ideal and real wages the higher chances for corruption approval.

The more policemen think that their colleagues accept bribes, the higher chances for the corruption approval among them.

7. Conclusions

Not only wages matter!

Something else is more important.

What exactly?

??? Values, culture, social norms???

next step for research

Thank you for your attention

Additional slide of questions

- 24. Какова Ваша заработная плата в полиции: сколько примерно денег вы получали на руки (включая премии, доплаты и надбавки, которые Вам платят в полиции) в среднем в месяц за 2011 год?
- 28. Как Вы считаете, сколько примерно должен получать человек на вашей должности?
- 30. Как относятся к дополнительным заработкам сотрудники Вашего подразделения?
- 38. Насколько приемлемой большинство Ваших коллег в подразделении сочтет следующую деятельность (позицию)? Полицейский получил взятку
- 39. Предположим, Вы узнаете, что один из Ваших коллег сообщил в службу внутренней безопасности о коррупции в вашем подразделении, как Вы к этому отнесетесь?