

How much inhabitants of countries with transitional economy trust the political institutions?

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According to pooling data by the World Values Survey Association, the most of the inhabitants of countries with transitional economy notice that the first aim of a country is economic growth. High levels of economic growth and a stable economy are more important for inhabitants of countries with a transitional economy, than for the OESD countries. It is obvious that the rates of growth are influenced in many respects by political institutions. However the essential part of the inhabitants of CIS and the European countries with transitional economies do not trust the basic political institutions. For example, the proportion of the citizens who are not trusting to the police, reaches 75 %, for the juridical system - 70 %, for the government – 76 %, for the parliament – 84 %, that considerably exceeds similar indicators for OESD countries. In the present article, we made an attempt to estimate the influence of individuals' economic and social characteristics to their relationship to the above-named institutions with the help of econometric models. The degree of trust to the basic political institutions depends on age, sex, education, income, institution of occupation, employment status of citizens.

We also investigated the dynamics of the changes in the attitude of inhabitants of some countries with transitional economies to the basic political institutions from 1990 to 2005.

1. INTRODUCTION

As many researchers (Glaeser E., 2004; Asoni A., 2008; Zak P. 2001) have shown, the rate of economic growth is influenced by the attitude of citizens towards the basic social and political institutes.

There are many sources of data reflecting the relationship of a citizens' confidence in churches, labour unions, parliament, political parties, the armed forces, the government, the justice system, etc.(e.g. World Values Survey Association official data (www.worldvaluessurvey.org) for more than 100 countries).

Many investigators have tried to estimate the influence of various factors on the relationship of the citizens to either one or several political or social institutions with the help of statistical methods and econometric models.

M.Cammett (M. Cammett, 2008) has discussed how welfare programs affect citizen attitudes towards the state in both Western and Eastern European countries using a random intercept multi-level model, in which the coefficients are fixed across countries, while the intercept varies. Bean C. (Bean C., 2003) compared the level of confidence in 14 different Australian institutions with the help of multiple regression analysis on several dimensions of confidence, with ten independent variables: gender, age, education, occupational grade, trade union membership, subjective social class, religious denomination, church attendance, region of residence and political party identification. Older people display more confidence than younger people in institutions of security. Ivkovic S. (Ivkovic S., 2008) has studied the determinants of public support for the police in 28 countries and has found that the respondents' views of the police, both general confidence and specific ability to control crime, are affected by the respondents' gender and age and by the quality of governance in the country in which they live. Peral B. (Peral B., 2008) tried to answer the questions: "Which aspects make citizens identify themselves with their political institutions? Which is the main source of the differences among societies in term of political support?" using the data for Europe in 1999-2005.

Anderson C. and Tverdova Y. (Anderson C., 2003) examined the effect of corruption on people's attitude towards government. They combined information at the level of respondent

(age, gender, education, socioeconomic status etc.) and countries (GNP per capita, GDP growth, democratic age, democracy score).

Wagner A. et al (Wagner A., 2009) employed a panel of observations from Eurobarometers in the time span 1990–2000 and analyzed how institutional factors affect satisfaction with democracy.

Kelleher C. et al (Kelleher C., 2007) used ordinal logit model with education, race, age, sex, representation ratio of women in the office, measure of income inequality etc. as the independent variables for explaining the public confidence in the branches of state government.

This paper continues the theme of the relationship between the socio-economics characteristics of citizens from countries with transitional economies and their attitudes to the main political institutions, such as the government, the police, the parliament, the justice system, the armed forces and political parties. We also investigated the dynamics of the changes in the attitude to the basic political institutions from 1990 to 2005. Using ordered logit and probit models we discussed the influence of social and economics characteristics of inhabitants on their attitude to the political institutions.

2. DATA AND VARIABLES

The data for this study were taken from the World Values Survey (WVS). We used four waves of WVS for transitional countries: Belarus, Bulgaria, Moldova, Poland, Romania, Russia, Serbia, Slovenia, Ukraine (1990, 1995, 1999 and 2005). WVS contains rich information on individual features such as age, sex, education, income, wage, demographic characteristics etc. We use these variables as independent in our empirical analysis. The definition of such variables is given in table 1. WVS also contains a series of questions regarding the attitude of individuals to the main social and political institutions. Corresponding variables are dependent in our analysis, the description of all such variables is provided in table 2. The four waves in WVS data allow tracking the changes which have occurred concerning the attitude of transitional countries' citizens to the main political institutes, such as the government, the parliament, the justice system, the police, the armed forces and political parties. We exclude from our analysis individuals who refused to answer the questions.

Table 1. Independent variables.

Variables	Definitions of variables in WVS
AGE	V237- age
SEX	V235 – Sex of respondent 1-male, 2-female
EDUCATION	V238 - What is the highest educational level that you have attained? 1 - No formal education 2 - Incomplete primary school 3 - Complete primary school 4 - Incomplete secondary school: technical/vocational type 5 - Complete secondary school: technical/vocational type 6 - Incomplete secondary: university-preparatory type 7 - Complete secondary: university-preparatory type

	8 - Some university-level education, without degree 9 - University-level education, with degree
INCOME	V253 – Scale of incomes 1- lowest step,..., 10 – upper step
SUPERVISING	V247- Supervising someone 1 – yes, 2 – no
UNEMPLOY	1 if V241 = 7, 0 if V241 ≠ 7 V241- employment status, 1 - full time employee (30 hours a week or more), 2 - part time employee (less than 30 hours a week), 3 - self employed, 4 - retired/ pensioned, 5 - housewife not otherwise employed, 6 – student, 7 – unemployed, 8 – other
SUBJECTCLASS	V252 – Social class (subjective) 1 – upper class, 2 – upper middle class, 3 – lower middle class, 4 – working class, 5 – lower class
GOVSECTOR	1 if V243 = 1, 0 if V243 ≠ 1 V243 – institution of occupation 1 – government or public sector 2 – private business or industry, 3 – private non-profit organization, 4 – self -employed

Source: World Values Survey Association, waves 1- 4 (www.worldvaluessurvey.org)

Table 2. Variables for measuring the level of confidence.

Variables	Definitions of variables in WVS	How much confidence you have in... (1 – A great deal 2 – Quite a lot 3 – Not very much 4 – Not at all)	Quite a lot	Not very much
CONFGOV	V138	The Government		
CONFPARL	V140	The Parliament		
CONFCOURT	V137	The Justice System		
CONFARMY	V132	The Armed Forces		
CONFPOLICE	V136	The Police		

Source: World Values Survey Association, waves 1- 4 (www.worldvaluessurvey.org)

3. EMPIRICAL RESULTS

3.1 Dynamics of confidence

Figures 1-6 contains charts demonstrating the dynamics of the changes which have occurred during 15 years in the attitude of transitional countries' citizens to the main political institutions. For measurement of a degree of trust to political institutions we used a share of the citizens who have answered " A great deal " or " Quite a lot " on the question " How much confidence you have in ...? " (the government, the parliament, the justice system, the police, political parties, the armed forces).

Questions of confidence to some institutes have not been included in all waves of WVS, therefore for some institutes we have 4 charts, and for some - only two.

Figure 1. Dynamics of the confidence in the Government

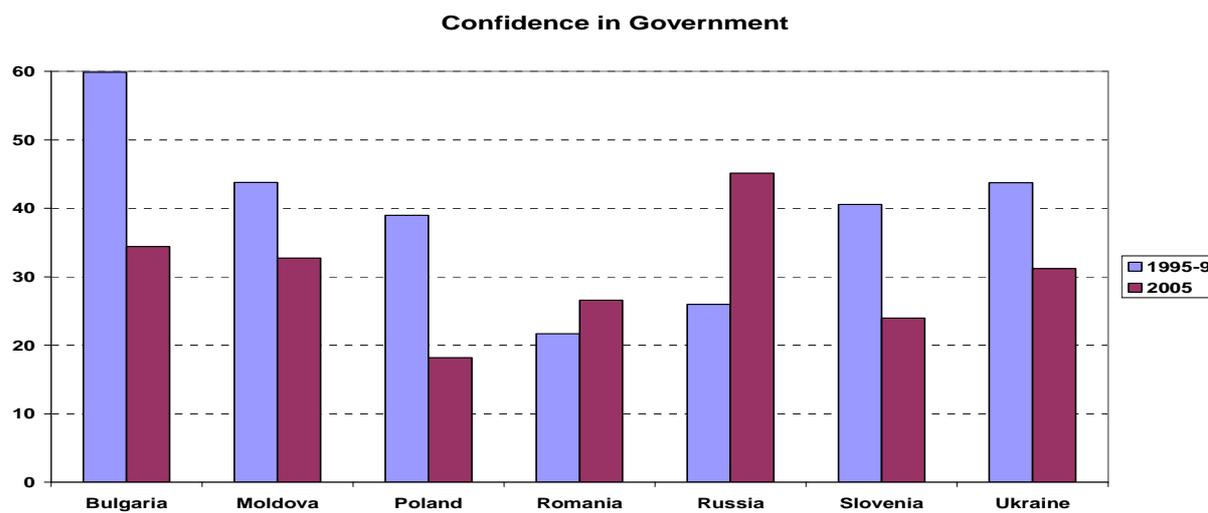


Figure 2. Dynamics of the confidence in the Parliament

Confidence in Parliament

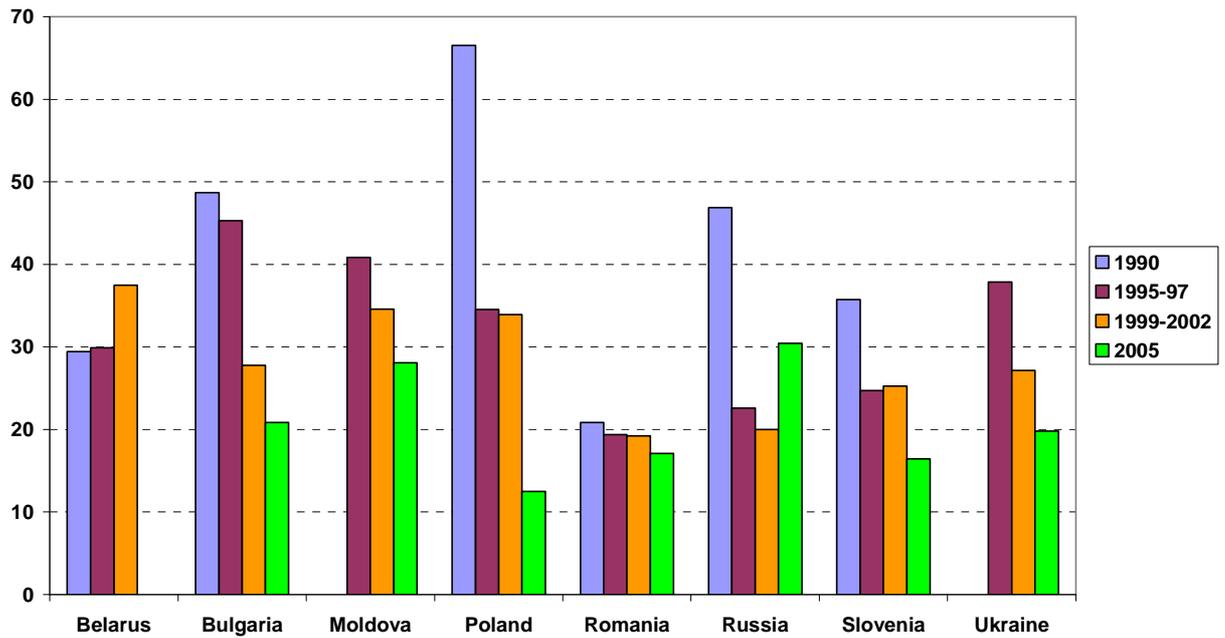


Figure 3. Dynamics of the confidence in the Justice System

Confidence in Justice System

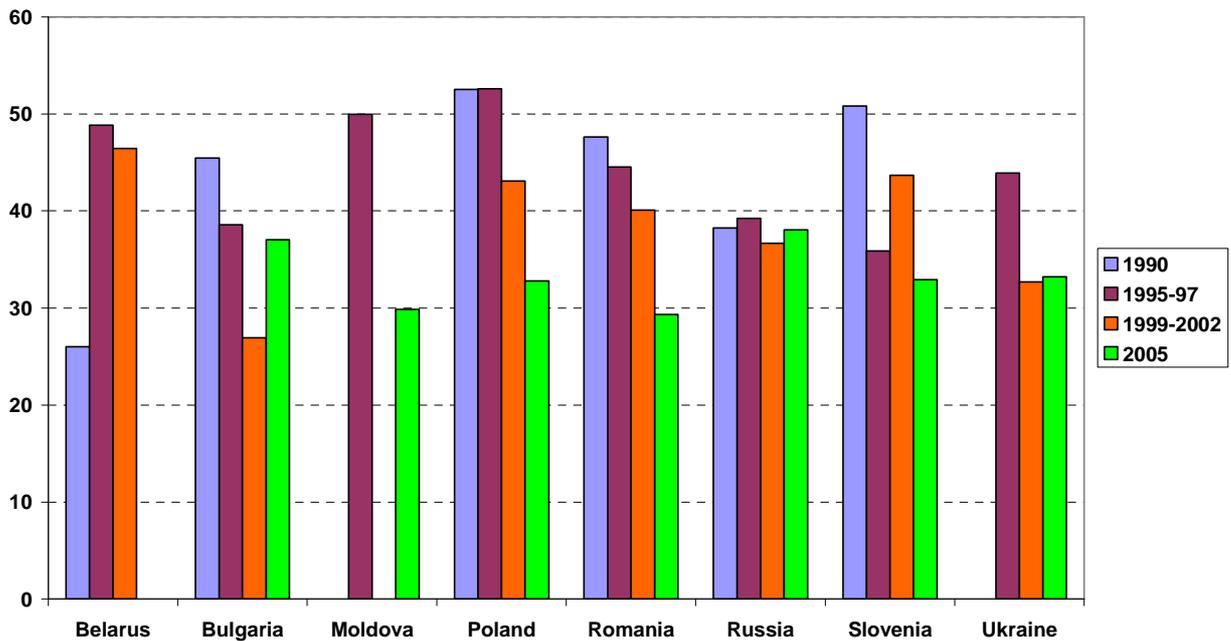


Figure 4. Dynamics of the confidence in the Police

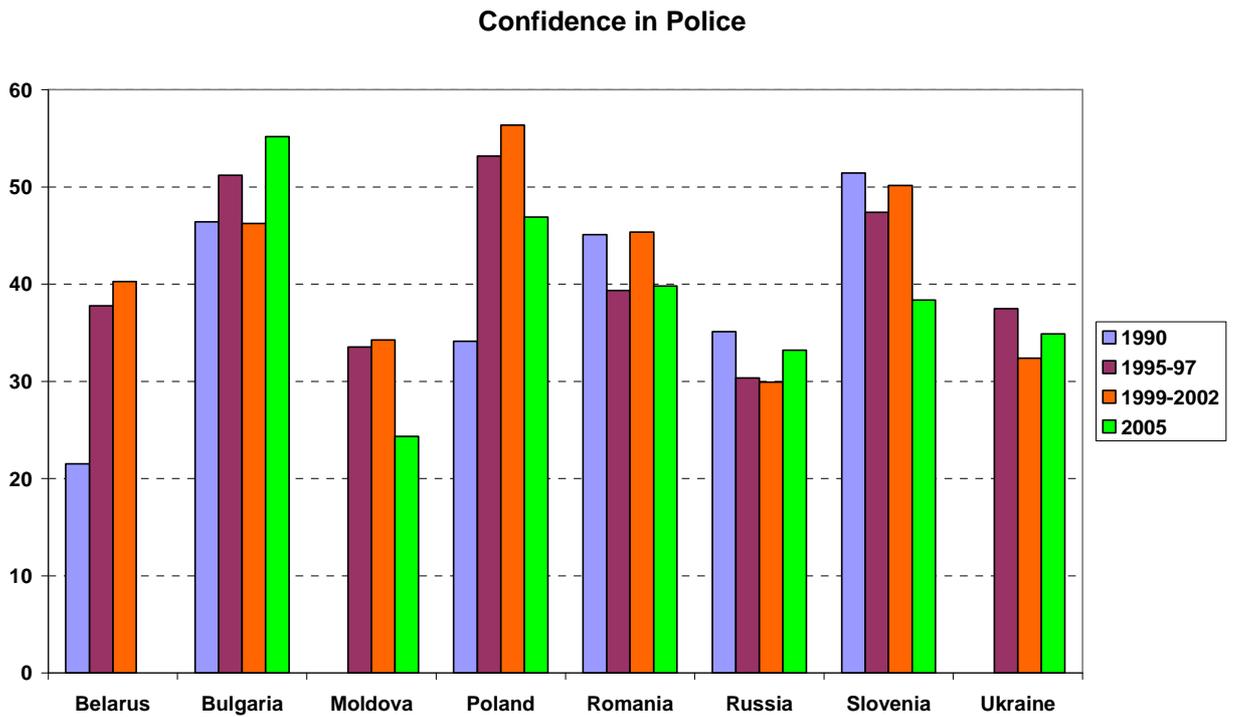


Figure 5. Dynamics of the confidence in the Political Parties

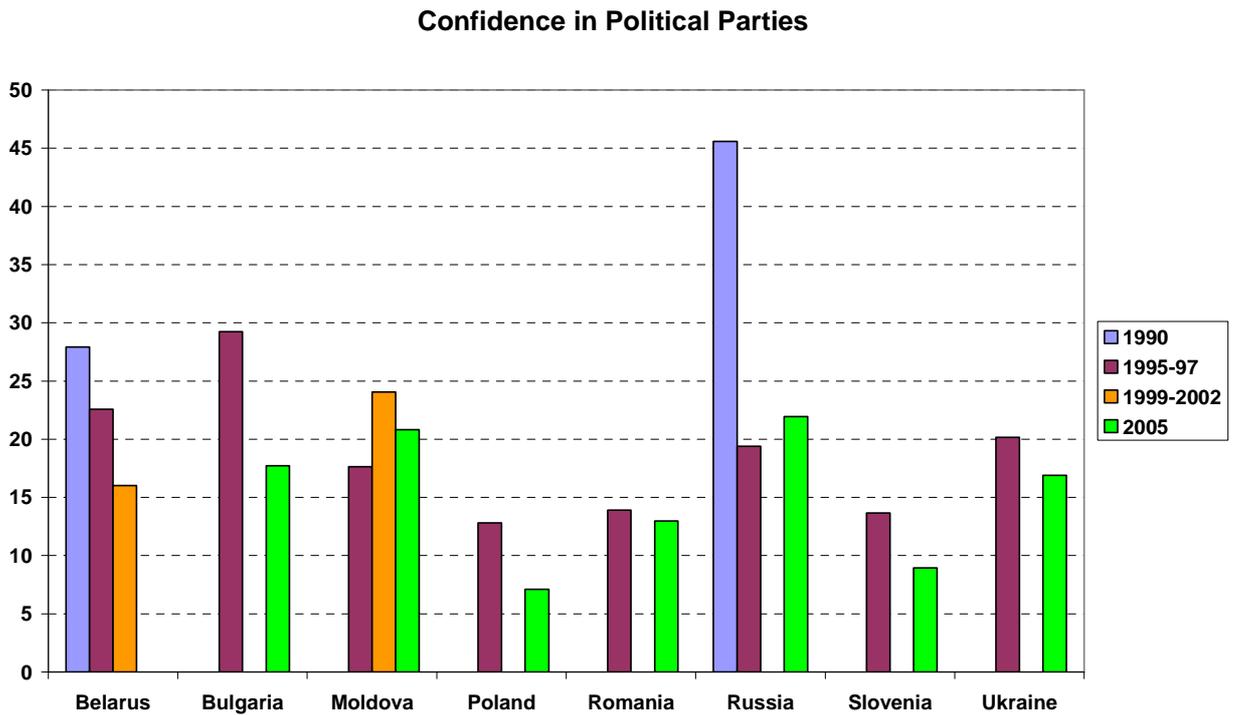
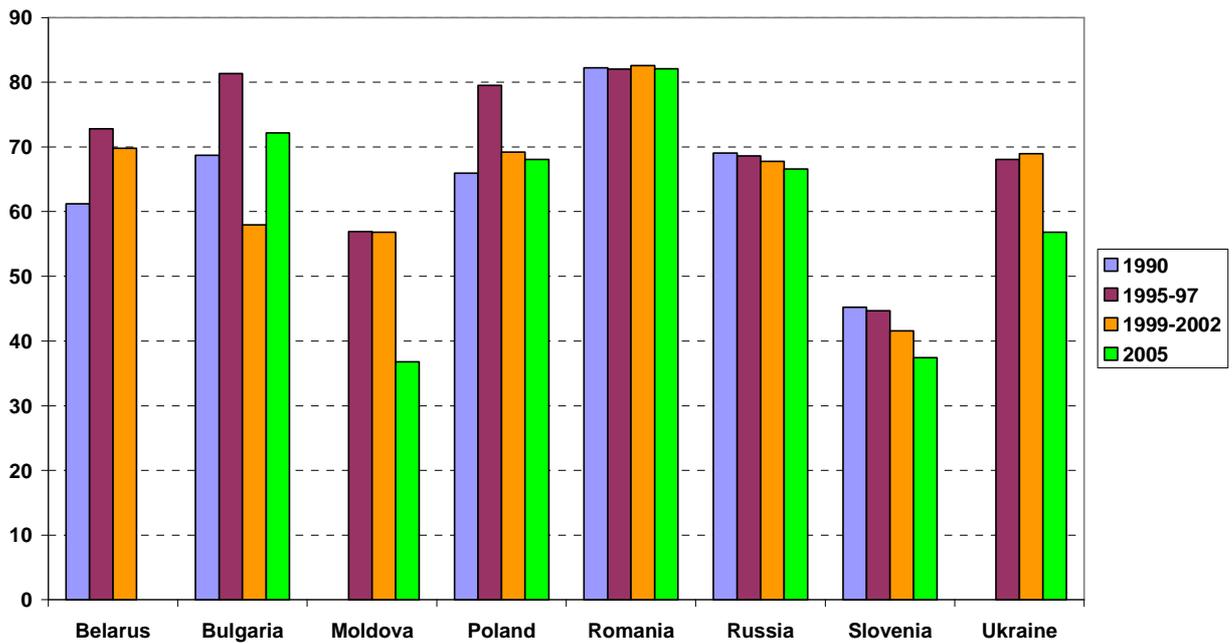


Figure 6. Dynamics of the confidence in the Armed Forces

Confidence in Armed Forces



To make comments on the received results, it is necessary to notice that there are no general tendencies in the dynamics of confidence in such institutions as the police, the justice system, and the armed forces. Only in Russia and Romania the levels of confidence in the government have increased. In all countries, except Belarus, level of confidence in the parliament decreased in comparison with 1990-1995 and only in Russia the trust in the parliament increase in 2005. In all countries, except Moldova, confidence in political parties decreases.

Figures 7 - 14 show absence of "parallelism" in dynamics of trust to the political institutions. "Lines of trust" to various political institutions are crossed.

Least inhabitants of all countries trust the political parties (less than 30 % of all inhabitants trust the political parties). Most of all in all countries, except for Slovenia, trust the Armed Forces.

Figure 7. Dynamics of the confidence in Belarus

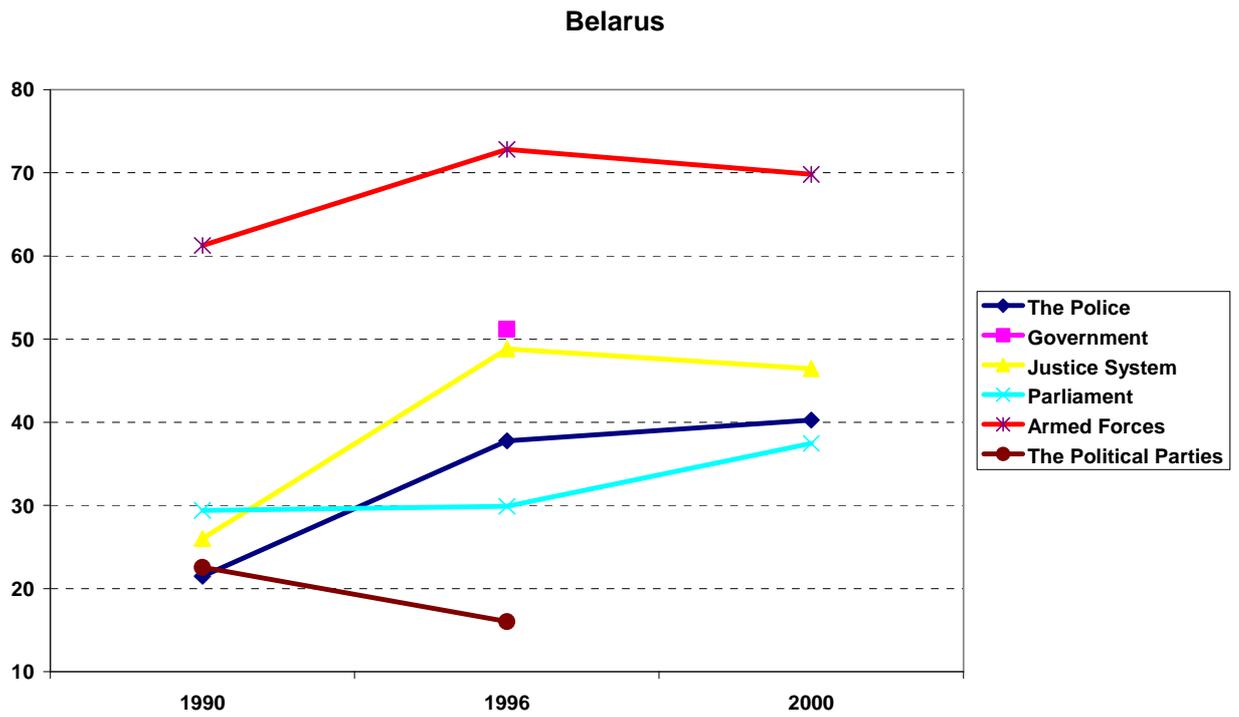


Figure 8. Dynamics of the confidence in Bulgaria

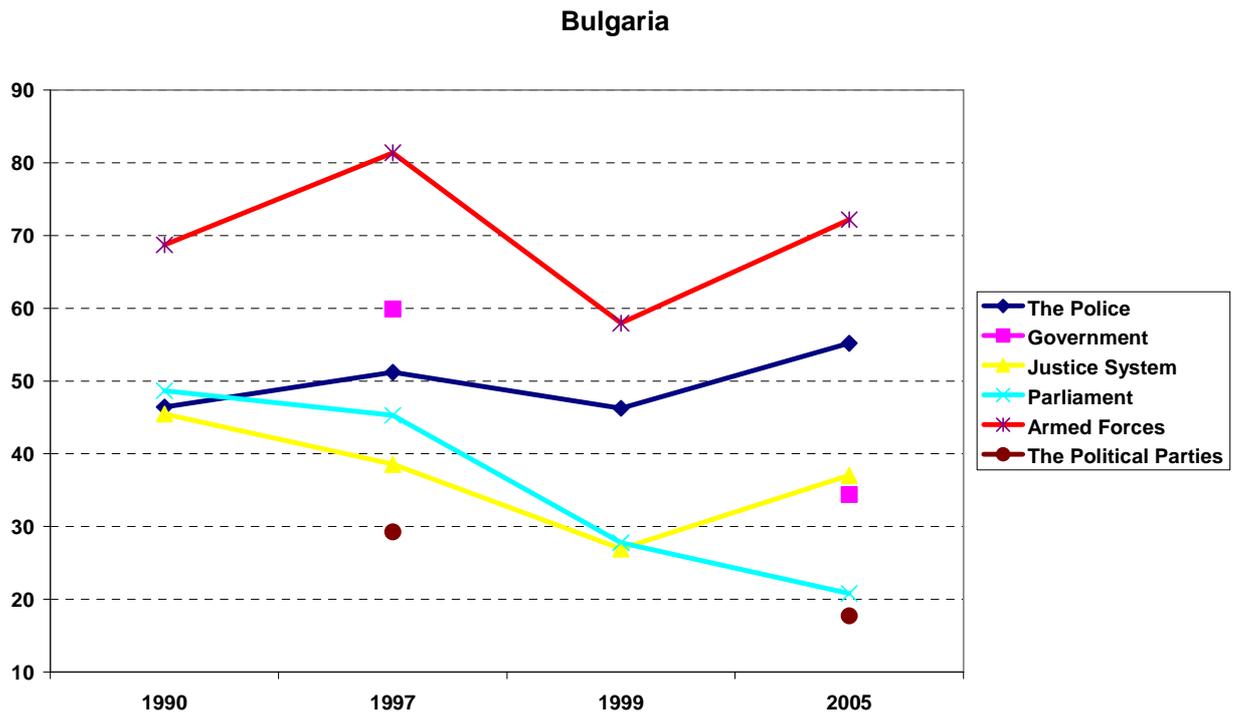


Figure 9. Dynamics of the confidence in Russia

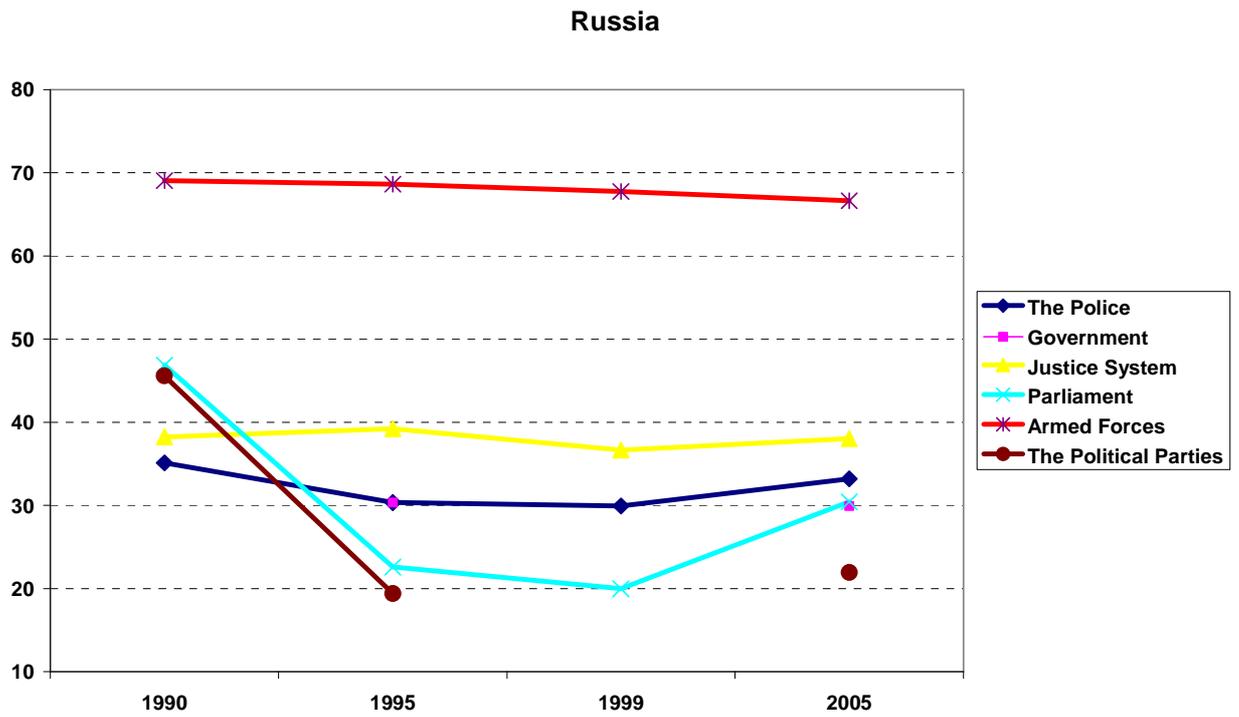


Figure 10. Dynamics of the confidence in Ukraine

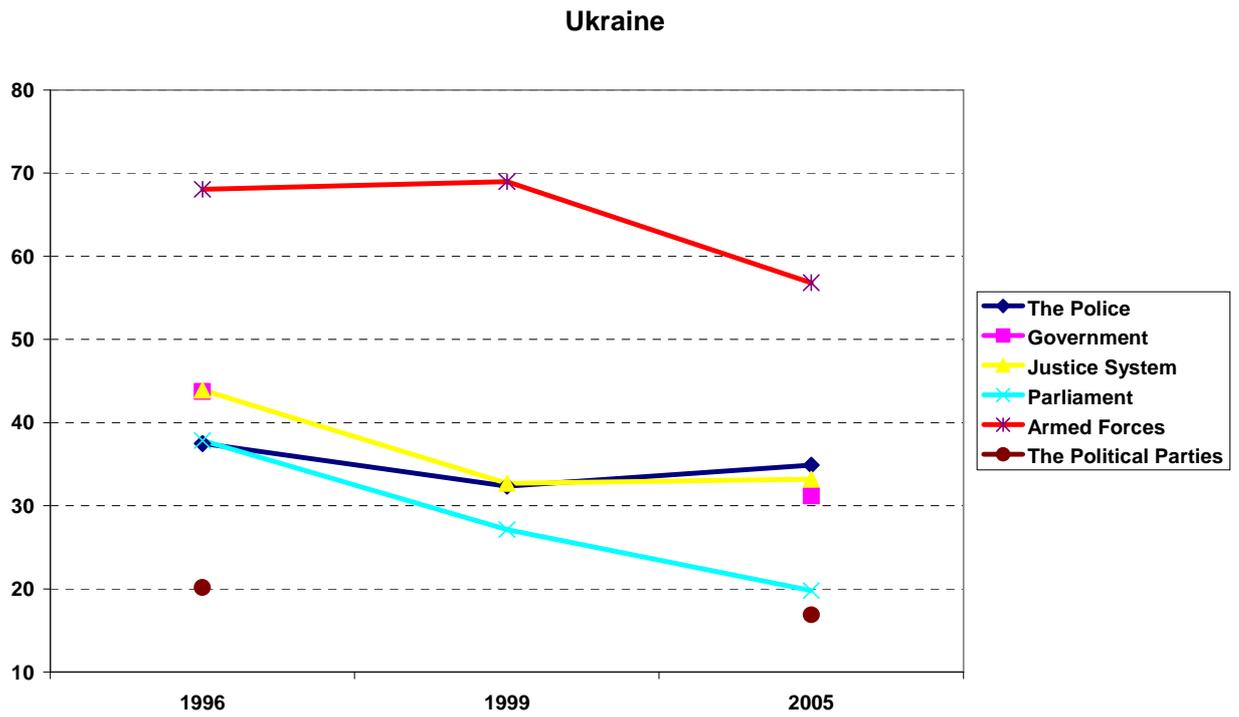


Figure 11. Dynamics of the confidence in Poland

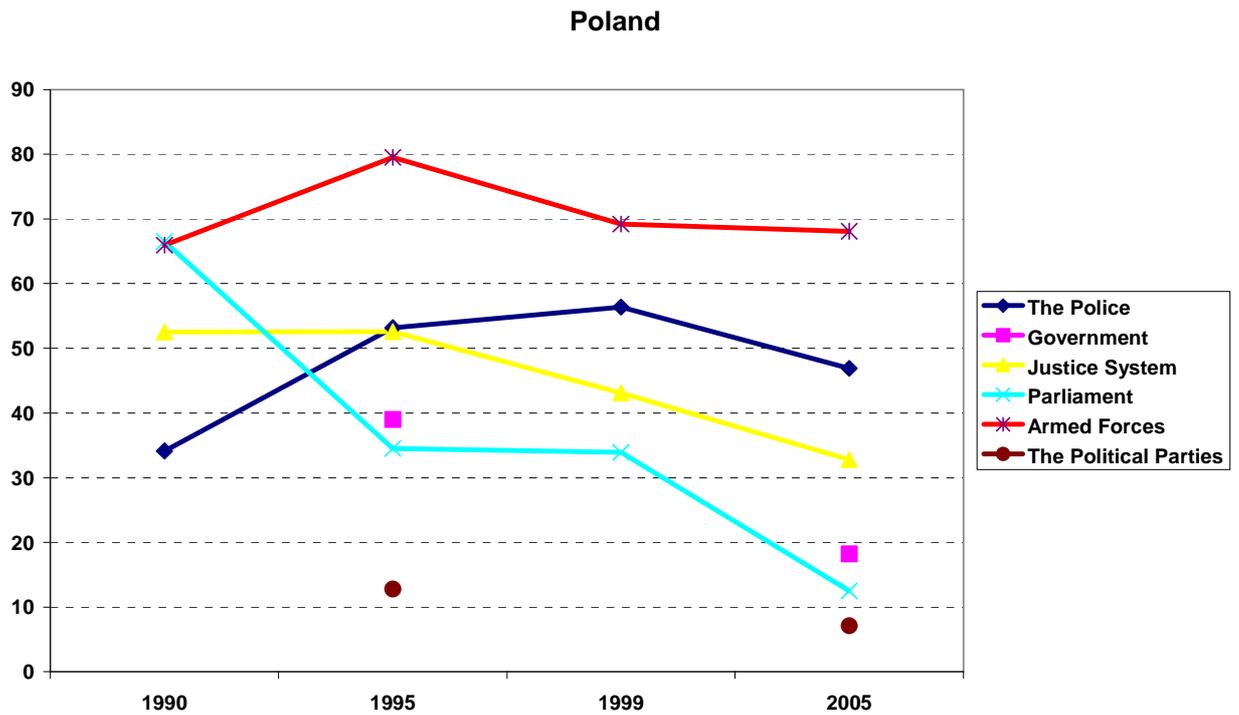


Figure 12. Dynamics of the confidence in Romania

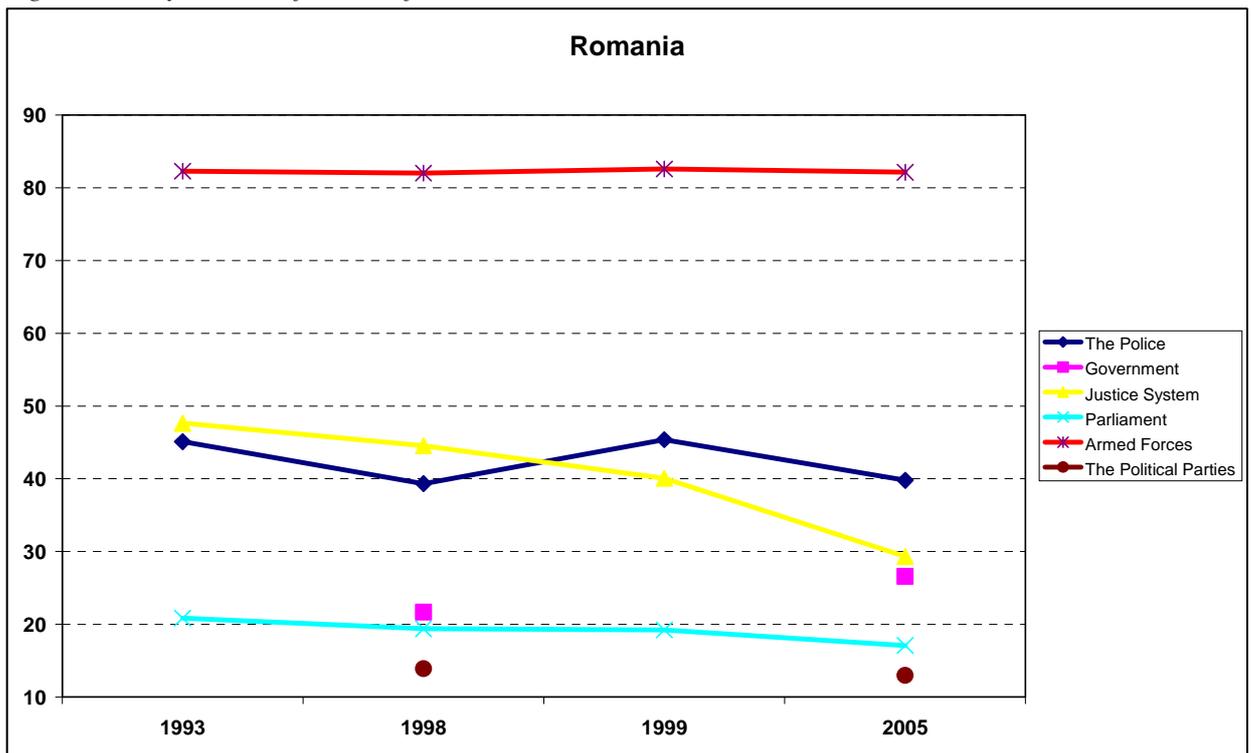


Figure 13. Dynamics of the confidence in Moldova

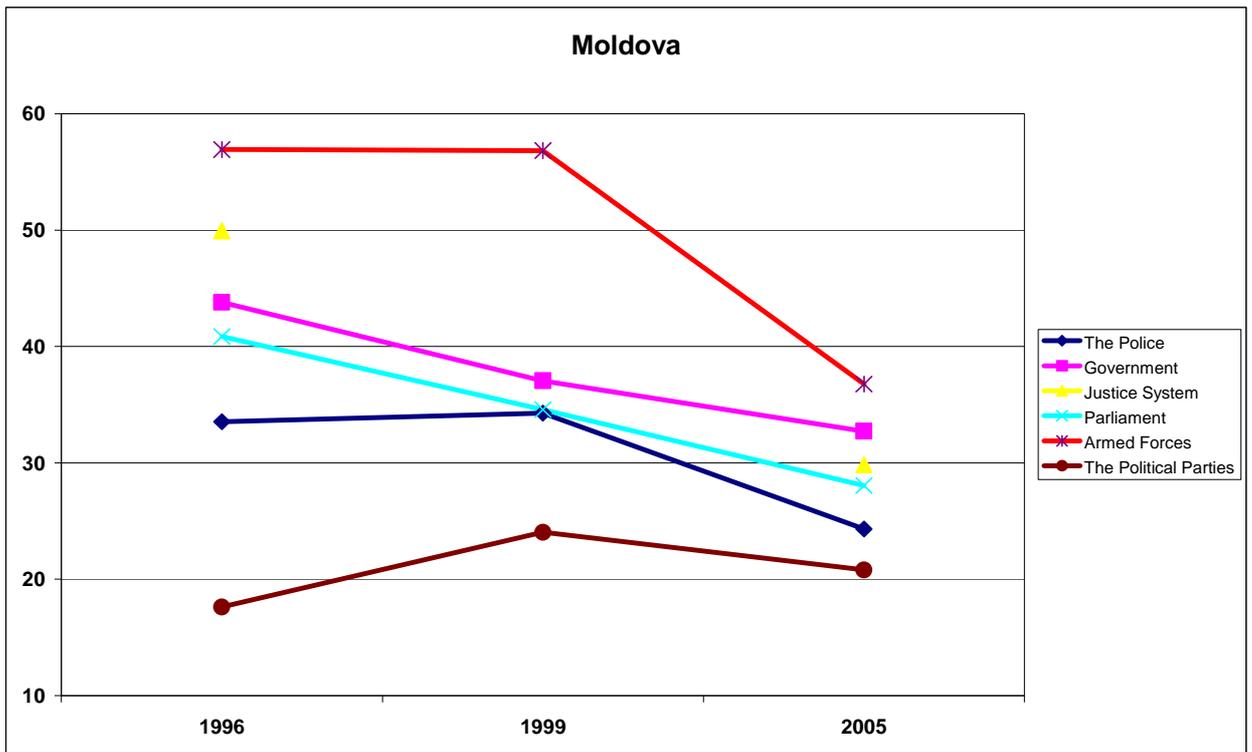
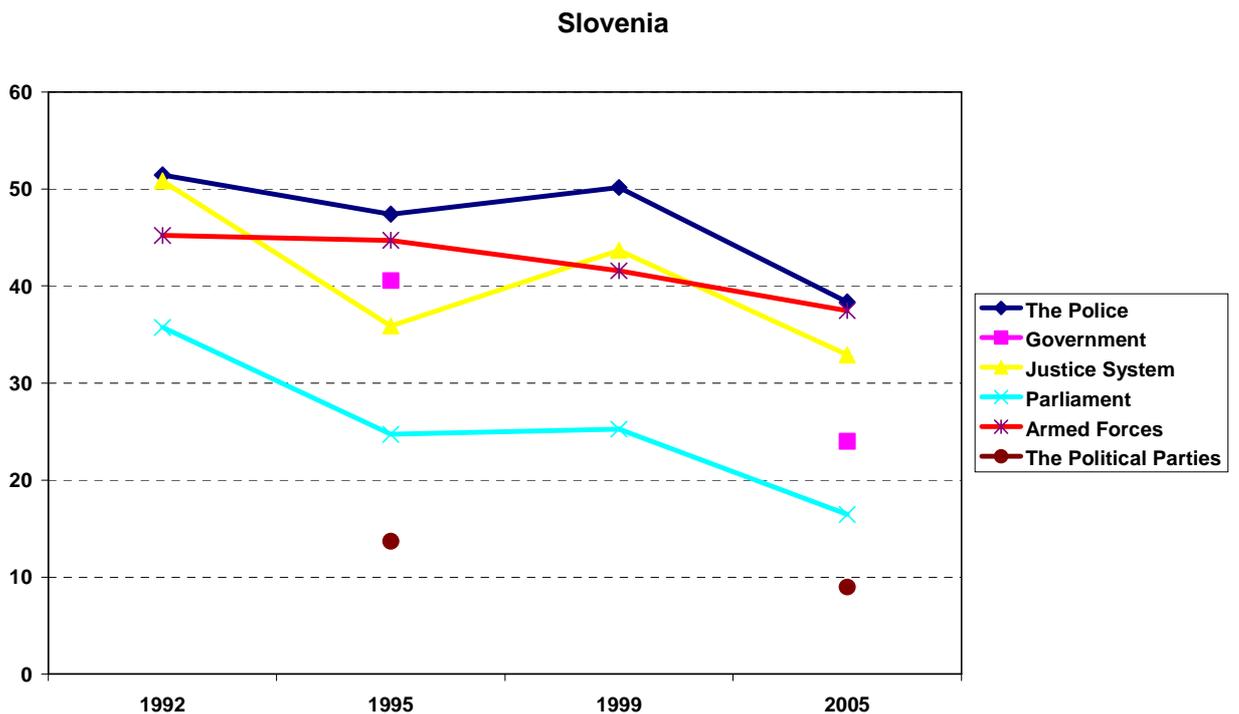


Figure 14. Dynamics of the confidence in Slovenia



Considering absence of the general tendencies concerning attitude of transitional countries' inhabitants to political institutions, we shall address to static models, using data for 2005.

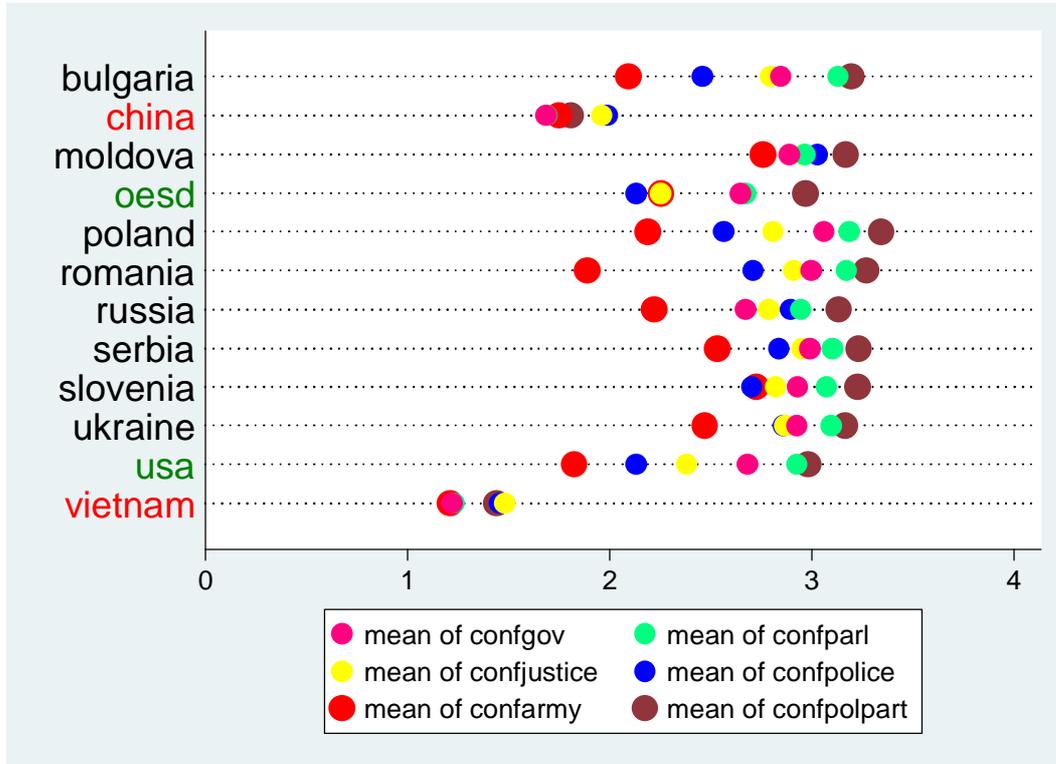
3.2 Static models

Figure 15 like figures 7 -14 demonstrates that the citizens of Bulgaria, Moldova, Poland, Romania, Russia, Serbia, Slovenia, Ukraine trust the armed forces most of all and trust political parties less of all.

The location of the points describing an average level of trust to other political institutions depends on the country. We shall note that inhabitants of China and Vietnam trust all political

institutes more; therefore we have excluded these countries with transitional economy from our analysis. For comparison we have included in our figure USA and OESD countries. Let's note that inhabitants of the USA and OESD trust police more, than inhabitants of the countries with transitional economy.

Figure 15. Comparison of mean level of confidence to political institutions



To get a better understanding of the determinants concerning the attitude of transitional countries' citizens to main political institutions, we ran a series of ordered logit and probit regressions:

$$\begin{aligned}
 Y^* &= X'\beta + \varepsilon, \\
 Y &= 1 \text{ if } Y^* \leq C_1, \\
 Y &= 2 \text{ if } C_1 < Y^* \leq C_2, \\
 Y &= 3 \text{ if } C_2 < Y^* \leq C_3, \\
 Y &= 4 \text{ if } C_3 < Y^*, \\
 P(Y = 1) &= F(C_1 - X'\beta), \\
 P(Y = 2) &= F(C_2 - X'\beta) - F(C_1 - X'\beta), \\
 P(Y = 3) &= F(C_3 - X'\beta) - F(C_2 - X'\beta), \\
 P(Y = 4) &= 1 - F(C_3 - X'\beta),
 \end{aligned}$$

where $F(Z) = \frac{e^Z}{1 + e^Z}$ for logit model and

$$F(Z) = \frac{1}{\sqrt{2\pi}} \int_{-\infty}^Z e^{-t^2/2} dt \text{ for probit model.}$$

To avoid a problem with data multicollinearity we used stepwise backward-selection estimation. The results for eight transitional countries are presented in Appendix, Tables A1 – A8.

The results obtained by logit and probit models are similar. For interpretation of the received results it is necessary to calculate the marginal effects of explaining factors. However it is easy to show (Green W., 2008) that marginal effect $\frac{\partial p(Y_i = 4)}{\partial X_j}$ signs ($i = 1, \dots, 6, j = 1, \dots, 8, Y_1 =$ CONFGOV, ..., $Y_6 =$ CONFPOLPAR are defined in table 2, and $X_1 =$ AGE, ..., $X_8 =$ GOVSECTOR are defined in table 1) coincides with a sign of X_j coefficient β_{ji} in the model with dependent variable Y_i , the marginal effect sign for $\frac{\partial p(Y_i = 1)}{\partial X_j}$ is opposite to a sign of the coefficient β_{ji} .

We have dropped tables with signs on all marginal effects since they are rather bulky. Table 3 contains information about the signs of all significant coefficients in tables A1 – A8 for eight transitional countries.

Table 3. The generalized information for the countries with transitional economy

	CONGOV	CONPARL	CONCOURT	CONARMY	CONPOLICE	CONPOLPAR
AGE	*B-,R-,RU-,S-,SL-		M+	R-, RU-, S-		B-, R-, S-
SEX	B-, RU-	R+,RU-,SL+	RU-, SL-	M+,R+,RU+, SL+	SL-	R+, S+
EDUCATION	M+, RU+, U-	U-	P-, RU+	R+, RU+, SL+	B+	B-, U-
SUPERVISING	R+, S+	B-,M+,S+,SL+	P-		RU-	P-
INCOME	RU+, S-, SL-	SL-, U-	M-, SL-, U-	M+, RU+	U-	P-,S-,SL-,U-
SUBJECTCLASS	R+	B+,M+,P+,R+,U-	S+	M+, S-, U-	B+, M+	M+
UNEMPLOY		M-	RU+, SL+		RU+, SL+	M-
GOVSECTOR			M-	B-, R-, U-	B-, R-	S+

Legend of country's shortcuts: B=Bulgaria, M=Moldova, P=Poland, R=Romania, RU=Russia, S=Serbia, SL=Slovenia, U=Ukraine

*B- in this cell means that coefficient of age in the model with dependent variable CONGOV is negative.

Proceeding from the signs of coefficients in the table 3, it is possible to draw conclusions for transitional countries' citizens.

4. CONCLUSIONS

- With age people trust the government, the armed forces and political parties more.
- Women more than men, trust the government and the justice system, but trust the armed forces and political parties less.
- More educated people trust the armed forces less. At the same time, influence of education on a degree of trust to the government and the justice system is ambiguous. For example, in Moldova well educated citizens more trust the government, and Ukraine – less.
- With an increase in the level of income the confidence in the parliament, the justice system and political parties increase.
- The higher the subjective social class of the individual, the more he trusts the parliament and the police
- A person having subordinates trust the government and the parliament more (Bulgaria is the exception).
- The unemployed people trust the justice system and the police less.
- Occupied in government sector trust the armed forces and the police more.

The received results can be used for determination of the measures promoting the increase of trust to the basic political institutions in the countries with transitional economy.

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Appendix

Table A. Logit and probit models' results

Table A1. Bulgaria

	CONFGOV	CONFGOV	CONFPARL	CONFPARL	CONF COURT	CONF COURT
	LOGIT	PROBIT	LOGIT	PROBIT	LOGIT	PROBIT
AGE	-0.0231019**	-0.013264**				
SEX	-0.4402275**	-0.2519359**				
EDUCATION						

SUPERVISING			-.3926375*	-.2387806*		
INCOME						
SUBJECTCLASS			.2963194**	.1487627*		
UNEMPLOY						
GOVSECTOR						
	CONFARMY	CONFARMY	CONFPOLICE	CONFPOLICE	CONFPOLPAR	CONFPOLPAR
	LOGIT	PROBIT	LOGIT	PROBIT	LOGIT	PROBIT
AGE					-.0267668***	-.0157366***
SEX						
EDUCATION			.1009181*	.0590855*	-.1136061**	-.0562736*
SUPERVISING						
INCOME						
SUBJECTCLASS			.2755957**	.1612594**		
UNEMPLOY						
GOVSECTOR	-.568957***	-.3259675***	-.5910057***	-.3195227**		

Table A2. Moldova

	CONFGOV	CONFGOV	CONFPARL	CONFPARL	CONFCOURT	CONFCOURT
	LOGIT	PROBIT	LOGIT	PROBIT	LOGIT	PROBIT
AGE					.0113833***	.0064626**
SEX						
EDUCATION	.109468***	.0633365***				
SUPERVISING			.4487627**	.2575926**		
INCOME					-.0819805***	-.0510143***
SUBJECTCLASS	.233251***	.1497424***	.1680334***	.1100276***		
UNEMPLOY			-.483726***	-.2745878***		
GOVSECTOR					-.2725167**	-.1708375**
	CONFARMY	CONFARMY	CONFPOLICE	CONFPOLICE	CONFPOLPAR	CONFPOLPAR
	LOGIT	PROBIT	LOGIT	PROBIT	LOGIT	PROBIT
AGE						
SEX	.2360712*	.143387*				
EDUCATION						
SUPERVISING						
INCOME	.064092*	.0346725*				
SUBJECTCLASS	.1580672**	.1045543**	.2084003***	.1193631***	.2466845***	.1506095***
UNEMPLOY					-.336036**	-.1751089*
GOVSECTOR						

Table A3. Poland

	CONFGOV	CONFGOV	CONFPARL	CONFPARL	CONFCOURT	CONFCOURT
	LOGIT	PROBIT	LOGIT	PROBIT	LOGIT	PROBIT
AGE						.0084768*
SEX				.2019089*		
EDUCATION					-.1218655*	-.0583197*
SUPERVISING					-.5313034*	-.2747182**
INCOME						
SUBJECTCLASS			.2824522**	.1697866**		
UNEMPLOY						
GOVSECTOR						
	CONFARMY	CONFARMY	CONFPOLICE	CONFPOLICE	CONFPOLPAR	CONFPOLPAR
	LOGIT	PROBIT	LOGIT	PROBIT	LOGIT	PROBIT

AGE		-.0084419*				
SEX		.1893778*				
EDUCATION						
SUPERVISING					-.4382*	-.267438**
INCOME					-.1281283**	-.074514**
SUBJECTCLASS						
UNEMPLOY						
GOVSECTOR						

Table A4. Romania

	CONFGOV	CONFGOV	CONFPARL	CONFPARL	CONFCOURT	CONFCOURT
	LOGIT	PROBIT	LOGIT	PROBIT	LOGIT	PROBIT
AGE	-.0149875**	-.0091204**				
SEX			.3317526**	.2107499**		
EDUCATION						
SUPERVISING	.2942649*	.1731683*				
INCOME						
SUBJECTCLASS	.2326876***	.1292829***	.1603383*	.0960214*		
UNEMPLOY						
GOVSECTOR						
	CONFARMY	CONFARMY	CONFPOLICE	CONFPOLICE	CONFPOLPAR	CONFPOLPAR
	LOGIT	PROBIT	LOGIT	PROBIT	LOGIT	PROBIT
AGE	-.0203345***	-.0104067**			-.0127727*	-.0084744*
SEX	.4127777***	.2078569**			.3911498**	.2450775***
EDUCATION		.0433068*				
SUPERVISING						
INCOME						
SUBJECTCLASS						
UNEMPLOY						
GOVSECTOR	-.4421993***	-.267339***	-.4180792***	-.2269755**		

Table A5. Russia

	CONFGOV	CONFGOV	CONFPARL	CONFPARL	CONFCOURT	CONFCOURT
	LOGIT	PROBIT	LOGIT	PROBIT	LOGIT	PROBIT
AGE	-.009185***	-.005329***				
SEX	-.2189763 **	-.1303226 **	-.1980678 **	-.1157363*	-.2520121 ***	-.1415879**
EDUCATION	.0585647 **	.0345112**			.0477688 *	.0333943**
SUPERVISING						
INCOME						
UNEMPLOY					.3900573*	.2170813*
GOVSECTOR						
	CONFARMY	CONFARMY	CONFPOLICE	CONFPOLICE	CONFPOLPAR	CONFPOLPAR
	LOGIT	PROBIT	LOGIT	PROBIT	LOGIT	PROBIT
AGE	-.011419***	-.0068163***				
SEX	.3605885***	.2187633***				
EDUCATION	.0616826**	.0352261 **				
SUPERVISING			-.2726395***	-.1629102***		
INCOME	.1086264***	.0649086**				
UNEMPLOY			.6327872***	.3884175***		
GOVSECTOR						

Table A6. Serbia

	CONFGOV	CONFGOV	CONFPARL	CONFPARL	CONFCOURT	CONFCOURT
	LOGIT	PROBIT	LOGIT	PROBIT	LOGIT	PROBIT
AGE	-.0134912*	-.0074294*				
SEX						
EDUCATION						
SUPERVISING	.3649141**	.2257024**	.4752466***	.2799218***		
INCOME	-.0806713*	-.0511678*				
SUBJECTCLASS					.1637808*	.0948191*
UNEMPLOY						
GOVSECTOR						
	CONFARMY	CONFARMY	CONFPOLICE	CONFPOLICE	CONFPOLPAR	CONFPOLPAR
	LOGIT	PROBIT	LOGIT	PROBIT	LOGIT	PROBIT
AGE	-.0188299**	-.011685***			-.0227317***	-.0135071***
SEX					.2940635*	.1709318*
EDUCATION						
SUPERVISING						
INCOME					-.143058***	-.0945756***
SUBJECTCLASS	-.2371157**	-.1387414**				
UNEMPLOY						
GOVSECTOR					.3183023*	.1634417*

Table A7. Slovenia

	CONFGOV	CONFGOV	CONFPARL	CONFPARL	CONFCOURT	CONFCOURT
	LOGIT	PROBIT	LOGIT	PROBIT	LOGIT	PROBIT
AGE	-.0186526***	-.010514***				
SEX			.5061882***	.3292113***	-.2831726**	-.1610937*
EDUCATION						
SUPERVISING			.2608425*			
INCOME	-.1289901***	-.075293***	-.0997883**	-.0607365**	-.1755279***	-.0931608***
SUBJECTCLASS						
UNEMPLOY					.6648115*	.4121404*
GOVSECTOR						
	CONFARMY	CONFARMY	CONFPOLICE	CONFPOLICE	CONFPOLPAR	CONFPOLPAR
	LOGIT	PROBIT	LOGIT	PROBIT	LOGIT	PROBIT
AGE						
SEX	.4084965**	.2104497**	-.2982593**	-.1799706**		
EDUCATION	.1227389***	.0703195***				
SUPERVISING						
INCOME					-.1073058**	-.0567908**
SUBJECTCLASS						
UNEMPLOY			.7042857*	.4276852*		
GOVSECTOR						

Table A8. Ukraine

	CONFGOV	CONFGOV	CONFPARL	CONFPARL	CONFCOURT	CONFCOURT
	LOGIT	PROBIT	LOGIT	PROBIT	LOGIT	PROBIT
AGE						
SEX						
EDUCATION	-.0868947*	-.0549814*	-.1590606***	-.0806415***		
SUPERVISING						
INCOME			-.1420707**	-.062454**	-.0890587*	-.056691*
SUBJECTCLASS			-.2218273*			

UNEMPLOY						
GOVSECTOR						
	CONFARMY	CONFARMY	CONFPOLICE	CONFPOLICE	CONFPOLPAR	CONFPOLPAR
	LOGIT	PROBIT	LOGIT	PROBIT	LOGIT	PROBIT
AGE						
SEX						
EDUCATION					-.091422**	-.05657***
SUPERVISING						
INCOME			-.1397166***	-.085839*	-.1337867**	-.0811009**
SUBJECTCLASS	-.3108665***	-.1543018**				
UNEMPLOY						
GOVSECTOR	-.5114719***	-.301514***				

* - significant at 10%, ** - significant at 5%, *** - significant at 1%.