Quality of Government Services and the Civic Duty to Pay Taxes in the Czech and Slovak Republics, and other Transition Countries

By Jan Hanousek and Filip Palda[1]

August 2002

Abstract

A 2002 survey of 1089 Czechs and 501 Slovaks, as well as a more limited survey of Hungary, and Poland, indicates that an individual may evade taxes in part if he believes he is receiving substandard government services. We suggest that an individual's evaluation of the quality of government services is not influenced by his need to justify his evasion. Self-reported measures of morality show no correlation with evasion. This suggests that perceptions of government services are not shaped by an individual's need to justify his evasion. This gives weight to our finding that the perceived quality of government services influences evasion. The less quality of government services an individual reports, the more likely he is to evade taxes. A 20% increase in the perception that government services are of quality would lead to a 5% decrease in the number of frequent tax evaders and a 12% increase in the number who never evade. Governments in transition countries who suffer from weak tax collection apparatus may wish to transmit clear information on the quality of their services in order to cut down on evasion.

---

1. Introduction

Tax evasion is one of the central problems facing the governments of transition countries. Corrupt tax officials, lack of resources to collect taxes, and populations versed in skirting rules, force transition countries to adopt systems of taxation that unduly target those narrow groups from who money can be extracted. This narrow targeting violates the central principle of efficient taxation, which is to tax at low rates on a broad base. Tax evasion raises what Browning (1976) calls the marginal cost of public funds. Governments of transition countries have attacked the problem of tax evasion by cracking down on evaders. The present paper suggests a supplementary approach might be in order. In a survey of the Czech and Slovak Republics, Hungary, and Poland, we find strong evidence that citizens will avoid taxes if they do not believe they are getting quality government services for the taxes levied upon them.

At first this result may appear odd. Why should a rational factor the quality of government services into his evasion decision? Theoretical models of why people evade taxes hold that individuals will evade taxes the if they do not fear risk, and if find they find low the chances of being caught and the penalty for being caught. These models assume the worst of taxpayers. People will free ride on government services if not whipped into paying their taxes. No theoretical model discusses the possibility that an individual's perception of the quality of government service might influence his decision to evade taxes. A similar omission can be found in research on why people vote. The famous Downsian voter hypothesis suggests that people vote for instrumental reasons. If no one believes they can influence the outcome of an election, no one will vote. The

Downsian voter hypothesis is now in retreat in face of data studies (summarized in Matsusaka and Palda 1993) showing it to lack explanatory power. Slemrod and Yitzhaki have cast similar doubt on the instrumental tax evasion model. In a major survey of tax evasion Slemrod and Yihtzaki (2000) have stated that the central mystery of taxation is not why people evade taxes, but why they pay taxes. The instrumental models of tax evasion developed by Allingham and Sandmo (1972) and a fleet of subsequent researchers (surveyed in Palda 1998), predict more tax evasion than we observe. The chances of being caught evading taxes in the U.S. are minuscule. According to Slemrod and Yitzhaki scarcely 1.5% of returns are audited and a small fraction of these is subject to penalty. As if ignoring these odds in favour of cheating, the majority of Americans choose to pay their taxes to the full.

Whenever a model lacks explanatory power researchers must scramble to find the forces that the model has overlooked. Our candidate for the missing force in tax evasion is the citizen's perception of the quality of government services. This search is not just of academic interest. We believe that governments wishing to reduce tax evasion must attack the problem in a pincer movement. One flank of evasion must come under attack from officers of the excise wishing to coerce citizens to pay. The other flank must be turned by a government wishing to prove to its citizens that their money is being well-spent.

Our research is of more than academic interest. We show that transition governments could make significant gains in revenue if they raised the perceived quality of the

services which they provide their citizens. By encouraging more people to pay their taxes these transition countries could lower the deadweight cost associated with every dollar of tax raised and so allow governments to undertake the investments needed to foster economic growth.

To make our case we set in competition two theories of tax evasion. Using our survey data we examine whether moral or instrumental reasons drive people to evade taxes. The competition is a bit of a sham, as we believe that both factors push people to evade or comply. The novelty of our approach is to have asked respondents to our survey whether they are satisfied with the quality of government services they receive. We then ferret out whether there is a relation between perceived quality and willingness to pay taxes. Our data affirm this surmise.

2. The Data

The goal of this paper is to seek out evidence that tax evasion is not just a product of greed but may also be a form of legitimate protest by citizens against a government they find to be inefficient and unresponsive to their needs. The first step in our analysis is to explore a survey we conducted of the Czech and Slovak Republics in 2002, as well as a more limited number for Hungary and Poland. Some results we present are comparable to a survey we conducted in 2000, and where these results are comparable we present both years. Our survey included 1089 Czechs and 501 Slovaks and was carried out by the leading Czech survey firm *Median* in May of 2002. The detailed questionnaire we used is attached in Appendix B. Appendix A contains a summary of some of the main variables used in our analysis. The purpose of this section is to lay out the measures of tax evasion we sought and to give the reader some idea of the characteristics of the population we studied. We will then proceed to show the relation between tax evasion and a citizen's belief that he is or is not getting quality government service for the taxes he pays.

As Giles (2000) explains, there are several ways to measure tax evasion: tax audit surveys, money demand methods, latent variable techniques, tax overhang methods, labour force surveys, and surveys asking individuals how much they evade. Surveys are useful for understanding why individuals evade taxes at any point in time, whereas macro-methods such as latent variable analysis and tax-overhang approaches are more appropriate for time-series analysis of tax evasion.

At present the only estimates of the underground economy for the Czech and Slovak Republics are those of the Ministry of Finance which is primarily concerned about collecting unpaid-backtaxes from firms. Until our survey, there were no independent academic estimates of the size of tax evasion in the Czech and Slovak Republics. There is a similar dearth of such estimates for other transition countries.

We have chosen the survey method of analyzing tax evasion because this method is rich in demographic information. We can use demographic information to see what characteristics of respondents are associated with evasion. The survey method also allows us to ask respondents what they believe is the probability of being caught evading and what penalties they believe they face, whether they believe evasion to be moral, and whether they believe their wealth needs to be safeguarded by tax evasion, whether government is giving them quality services for the taxes they pay. These subjective data allow us to probe the effects of incentives on the decision to evade. Survey data suffer from the lies respondents tell. We shall see that even though lying may pervade the data, solid relations emerged between the questions we asked and whether people evaded.

The main problem we faced was in knowing how much tax people evade. The obvious problem when asking people about their participation in the underground economy is that they will be reluctant to confess their participation. Our survey tackles this problem in stages. First we ask respondents whether they know of anyone who has participated in the underground economy. Respondents might not feel ashamed about answering this question honestly. Knowing people who participated in the underground economy could

be a weak signal that the respondent also participates. Next we ask whether the respondent has ever bought goods or services in the underground economy. Finally, and this is perhaps the question to which respondents will give the least honest reply, we ask whether they have themselves ever participated in the underground economy and what is the nature of this participation.

Tables 1a and 1b summarize the first ("soft") level of inquiry of our survey. Table 1a is from our 2000 survey (see Hanousek and Palda 2002) and Table 1b is from the present 2002 survey. These tables show the answer to what people thought about the size of the underground economy. If people are rational observers of their surroundings, their opinions about the size of the underground economy might be a fair estimate of the actual underground economy. Giving an opinion about the size of the underground economy is not likely to threaten a respondent so that we can expect the answers to be honest.

Table 1a: "Soft" measures of participation in the underground economy, 2000

Survey question	CR	SL	Significant difference
Percentage of adults in country having unreported income	38.3	42.7	**
Percentage of neighbors having unreported income	33.2	38.8	**
Ever bought undeclared goods/services	49.4	50.0	

Source: 2000 Survey data, authors' computation

Table 1b: "Soft" measures of participation in the underground economy, 2002

Survey question	CR	SL	Significant difference
Percentage of adults in country having unreported income	48.6	53.8	**
Percentage of neighbors having unreported income	37.4	38.9	
Ever bought undeclared goods/services	55.3	54.4	

Source: 2002 Survey data, authors' computation

Row 3 of Tables 1a and 1b summarizes the answers to more intimate questions than those summarized in rows 1 and 2. Here we ask whether the respondent has ever bought goods in the underground economy. The level of threat to respondents is greater here than in the questions in rows 1 and 2, but still fairly mild, as there is no effective legal sanction for those who buy goods from producers who evade taxes unless the law forbids sale of these goods. There is no significant difference between what Czechs and Slovaks answered. Both groups claim with equal frequency to have bought from the underground sector. There is no contradiction between the finding that Czechs and Slovaks buy equally from the shadow sector and the earlier finding that Slovaks believe the percent of people with income from the shadow economy is higher than for the Czech Republic. Our questions to respondents up to this point in the discussion have been sufficiently vague to allow for several interpretations. Czechs and Slovaks may buy equally from the black market but Slovaks may spend more in their purchases. To get a more precise idea of how much tax people evade than the answers given to the questions in Tables 1a and 1b we need to put the question of evasion to respondents baldly and hope that some respondents accept to answer our questions.

The most intimate questions in our survey ask the respondent with what frequency he has worked and not declared his income and how much money he earned from activities upon which he did not declare to the publicans.

Table 2a. Values and 95%-confidence intervals for relative frequencies of different level of tax evasion. Czech Republic 1995, 1999, 2000, 2002.

Year	Often	Sometimes	Never
1995	3,2% (2,0%, 4,4%)	12,6% (10,5%, 14,7%)	84,2% (81,9%, 86,5%)
1999	3,7% (2,4%, 4,9%)	16,7% (14,3%, 19,0%)	79,7% (77,1%, 82,2%)
2000	3,9% (2,6%, 5,1%)	21,3% (18,7%, 23,9%)	74,9% (72,1%, 77,6%)
2002	3,7% (2,5%, 4,9%)	20,2% (17,7%, 22,7%)	76,1% (73,4%, 78,8%)
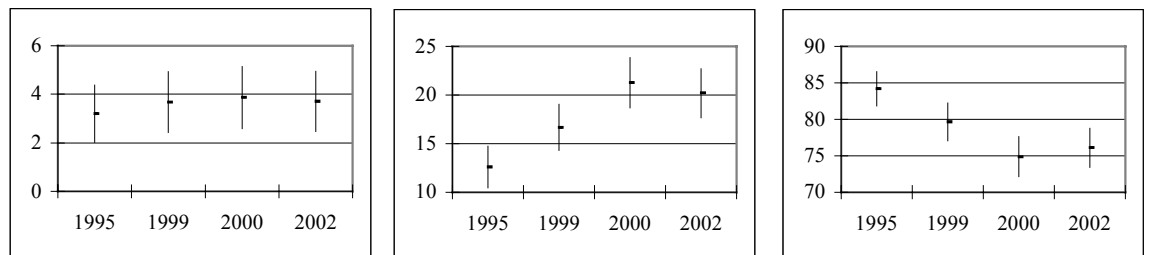
Figure 1: Graphs for 95% confidence intervals

Source: 2000 and 2002 survey data, authors' computation

Table 2b. Values and 95%-confidence intervals for relative frequencies of different level of tax evasion. Slovak Republic 1995, 1999, 2000, 2002.

Year	Often	Sometimes	Never
1995	1,1% (0,0%, 2,2%)	8,0% (5,4%, 10,6%)	90,9% (88,2%, 93,6%)
1999	1,3% (0,1%, 2,5%)	10,4% (7,5%, 13,3%)	88,3% (85,3%, 91,3%)
2000	1,3% (0,1%, 2,5%)	13,5% (10,3%, 16,7%)	85,2% (81,9%, 88,5%)
2002	2,6% (1,1%, 4,1%)	14,0% (10,9%, 17,1%)	83,5% (80,2%, 86,8%)
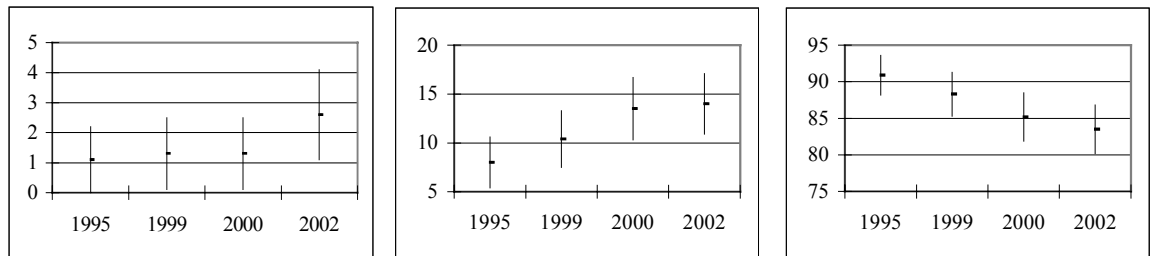
Figure 2: Graphs for 95% confidence intervals

Source: 2000 and 2002 survey data, authors' computation

The above tables and graphs show a marked tendency for those who never evaded taxes to be a diminishing group. In another paper (Hanousek and Palda 2002) we discussed how those who have never evaded taxes are a shrinking group of society and how this bodes ill for the long-term evolution of tax payment in the Czech and Slovak Republics.

The most intimate question we asked was simply how much tax a person evaded. Table 3 breaks down undeclared income into different income categories. This table is roughly consistent with Table 2b. Nearly 30% of Czechs claim to have some undeclared in Table 3, whereas in Table 2b nearly 25% of Czechs claim to have evaded sometimes or often. The statement seems less applicable to the Slovak Republic. Appendix C shows almost identical trends for Hungary, and Poland.

Table 3: Distribution of undeclared income, 2002

Income range	CR	SR
None	72.8	83.5
<10,000 Crowns	14.8	9.8
10,000-15,000 Crowns	1.3	0.2
15,000-20,000 Crowns	0.5	0.2
20,000-25,000 Crowns	0.4	0.0
>25,000 Crowns	0.0	0.0
Rejected answer	10.2	6.3

Source: 2002 Survey data, authors' computation

Figures 1 and 2 show how evasion has evolved over the last seven years in the Czech and Slovak Republics. Once again we must take care not to view the estimates of tax evasion in the above tables as being accurate. Respondents might tell us how much they evaded but there are two problems we must recognize while interpreting these responses. The first problem with the estimates in Table 3 is that people lie about their incomes. Horry, Palda, and Walker (1992) found that in surveys of consumer finances for Canada, respondents consistently underreported their incomes by 10%. They were able to arrive at this conclusion by comparing GDP imputed from the Canadian survey of consumer

finances with GDP derived from the national accounts. If people lie about their legitimate income, chances are they will also lie about their shadow income. The second problem with the estimates in Table 3 is that some respondents chose to answer how much they evaded and others chose not to answer. The self-selection of responses is a warning that our sample of answers may not be representative of the population of answers. The direction in which might go this potential selection bias is not clear. Those who answer may have less to hide than those who do not answer. In this case answers would underestimate the size of tax evasion. If the biggest tax evaders are also the least risk averse people then sample selection could bias upward our estimates of the underground economy. If those who answered how much they evaded are a random mix of the above two types then our estimate of the size of tax evasion will not be biased but may suffer from a large variance.

Perhaps the most complicated problem posed by our measures of tax evasion is that it is difficult, if not impossible in a survey to ask people exactly how much they evaded. We can pose questions about the range in which their evasion might fall, but this form of question bunches all the highest evaders into one group. We have no idea of the upper limit of evasion in this highest group. Questions about how often people evade give us an idea of the number of people participating in the shadow economy, but once again, their answers do not accurately weigh the degree of their involvement. These potentially frustrating aspects of the survey data are standard in this area of research and force us to dose our findings with a heavy degree of interpretation and nuance.

3. Quality and Willingness to Pay

3.1 Cross-Tabulations

The above overview of Czech and Slovak evasion speaks of two societies where tax evasion seems to be pervasive. Why should this be so? Opportunity is the answer that leaps to mind. Czechs and Slovaks have a device for evasion at their disposal. Hundreds of thousands of citizens declare themselves "consultants" to companies. While the consultant sits in his company office, the company need not worry about paying social security benefits and the so-called consultant may deduct from his taxes apartment, travel, and food expenses. Czech and Slovak authorities have not yet caught up with this variant of evader. Authorities have enough on their hands with the large corporate evaders whom they estimate to be important and easily targeted cheaters of the government treasury. Pervasiveness may be in the eyes of the beholder. We have no benchmark against which to assess whether evasion is large or small. At best we can hope to separate two forces that might influence evasion: an man's greed and his sense of duty to the community. Recall that these are the two competing views of the motives for tax evasion we set against each other earlier in the paper. We said people may pay taxes for instrumental or for moral reasons.

By greed we understand reasons for evading that do not extend beyond the monetary benefit of the evader. To such an individual penalties for evading and the probability of being caught evading should figure high in his calculations. Tables 7a-b show a cross-

13

tabulation of whether an individual thought himself likely to be caught and the extent of his evasion as measured by the degree to which he personally evades and the degree to which he buys goods he knows to be sold without duty. There are odd gaps in these tables. At first glance one might surmise that as the perceived probability of being caught rises the incidence of evasion falls. We have cut the results by category of evader as a simple form of control. If we find the same tendency for all categories we can be confident in the robustness of our results. Tables 7a-b are open to wide interpretation, so what we have done is to calculate correlation coefficients. These strongly suggest that as the perceived probability of being caught rises, the incidence of evasion falls.

Table 7: Cross-tabulation of probability of being caught with evasion for Czech and Slovak Republics 2002

Probability of being caught	Frequency of underground work					
	Often		**Occasionally**		**Never**	
	CR	SR	CR	SR	CR	SR
0%	18.9%	30.8%	10.9%	13.2%	7.3%	11.6%
10%	37.8%	7.7%	15.3%	8.8%	6.8%	4.3%
20%	16.2%	15.4%	16.8%	17.6%	7.8%	8.7%
30%	5.4%	7.7%	13.4%	14.7%	8.6%	9.7%
40%	0.0%	7.7%	6.4%	4.4%	7.8%	9.2%
50%	0.0%	0.0%	18.8%	20.6%	20.2%	25.8%
60%	5.4%	7.7%	2.0%	2.9%	4.7%	3.9%
70%	0.0%	15.4%	3.0%	5.9%	5.0%	6.0%
80%	5.4%	7.7%	4.0%	2.9%	8.7%	4.8%
90%	0.0%	0.0%	2.0%	1.5%	3.4%	3.1%
100%	10.8%	0.0%	7.4%	7.4%	19.7%	12.8%

Note: For Slovakia Spearman's rho (nonparametric correlation) is 0.139 (p-value 0.00) and for Czech Republic it is 0.258 (0.00).

Table 7b: Cross-tabulation of probability of being caught with "passive" evasion for Czech and Slovak Republics 2002

Probability of being caught	Frequency of buying underground goods and services					
	Often		**Occasionally**		**Never**	
	CR	SR	CR	SR	CR	SR
0%	11.1%	22.0%	10.1%	10.1%	6.6%	12.8%
10%	25.3%	12.2%	9.6%	4.4%	6.2%	4.4%
20%	13.1%	19.5%	11.4%	7.9%	7.7%	10.6%
30%	8.1%	12.2%	10.9%	11.5%	8.2%	8.8%
40%	4.0%	4.9%	6.1%	11.5%	8.8%	6.2%
50%	9.1%	12.2%	22.1%	26.9%	18.4%	24.2%
60%	3.0%	2.4%	3.5%	4.4%	5.1%	3.5%
70%	5.1%	7.3%	3.5%	5.7%	5.3%	6.6%
80%	6.1%	2.4%	7.9%	4.4%	8.0%	5.3%
90%	2.0%	0.0%	2.4%	3.5%	3.5%	2.6%
100%	13.1%	4.9%	12.5%	9.7%	22.1%	15.0%

Note: For Slovakia Spearman's rho (nonparametric correlation) is 0.101 (p-value 0.02) and for Czech Republic it is 0.193 (0.00).

Tables 8a-b cross-tabulate the frequency of evasion with the perceived penalty for evading. It is difficult to interpret the results of these tables. If we include the whole range of answers to our questions, including the "I don't knows" a higher perceived penalty tends to be accompanied (very negative Spearman rank correlation coefficient) by lower tax evasion in both Czech and Slovak Republics. The Spearman coefficient of correlation, like all other non-parametric statistics using ordering of values. Once we take out the value for "I don't know" the correlation we find between evasion and perceived penalty disappears. Later in the regressions we present, perceived penalty also has no significant effect on evasion. This does not mean the effect does not exist, but either that peoples' perceptions of the penalty are similar and so our data does not have enough

variation to pick up an effect, or it may mean that the effect of perceived penalty on

evasion is being dwarfed in our sample by other factors citizens take into mind.

Table 8a: Cross-tabulation of perceived tax penalty with evasion for Czech and Slovak Republics 2002

Perceived tax penalties (daily)	Frequency of underground work					
	Often		Occasionally		Never	
	CR	SR	CR	SR	CR	SR
0.10%	18.4%	23.1%	20.1%	8.5%	15.0%	9.9%
0.20%	5.3%	23.1%	6.2%	11.3%	6.7%	8.5%
0.50%	15.8%	0.0%	15.3%	19.7%	14.1%	13.9%
1%	18.4%	0.0%	14.4%	19.7%	16.6%	21.2%
Other	10.5%	7.7%	10.5%	9.9%	8.0%	14.2%
do not know	31.6%	46.2%	33.5%	31.0%	39.6%	32.3%

Note: If we exclude missing [I do not know] observations, for Slovakia Spearman's rho (nonparametric correlation) is 0.08 (p-value 0.19) and for Czech Republic it is 0.06 (0.18).

Table 8b: Cross-tabulation of perceived tax penalty with buying goods in the underground sector for Czech and Slovak Republics 2002

Tax penalties (daily)	Frequency of buying underground goods and services					
	Often		Occasionally		Never	
	CR	SR	CR	SR	CR	SR
0.10%	18.4%	11.6%	17.2%	11.1%	14.4%	8.6%
0.20%	6.8%	14.0%	5.7%	9.8%	7.1%	7.8%
0.50%	16.5%	2.3%	14.3%	15.4%	14.4%	15.5%
1%	19.4%	14.0%	15.7%	20.5%	16.4%	21.6%
Other	8.7%	16.3%	9.4%	12.0%	7.8%	14.2%
do not know	30.1%	41.9%	37.7%	31.2%	39.9%	32.3%

Note: If we exclude missing [I do not know] observations, for Slovakia Spearman's rho (nonparametric correlation) is 0.09 (p-value 0.13) and for Czech Republic it is 0.02 (0.6).

As we have emphasized, greed may not be the only reason for evading taxes. A well-

seated conviction that one is not getting quality government services for the money one

pays may play a role in an individual's decision to evade. Tables 9 shows that there is a

relation between how people perceive the quality of government services and the degree to which they evade taxes.

Table 9: Cross-tabulation of government service index with evasion for Czech and Slovak Republics 2002

Government service index (1=very satisfied, 5=very unsatisfied)	Frequency of underground work					
	Often		Occasionally		Never	
	CR	SR	CR	SR	CR	SR
1			0,48		0,25	0,47
2		7,69	9,57	2,82	10,15	1,65
3	31,58	15,38	25,36	5,63	27,54	9,91
4	26,32	15,38	37,80	35,21	40,10	38,21
5	39,47	61,54	24,40	54,93	20,81	48,82

Source: 2002 Survey data, authors' computation

Table 10: Cross-tabulation of government service index with buying goods and services from underground economy for Czech and Slovak Republics 2002

Government service index (1=very satisfied, 5=very unsatisfied)	Frequency of buying goods and services in underground sector					
	Often		Occasionally		Never	
	CR	SR	CR	SR	CR	SR
1		4.76	0.21		0.44	
2	7.77	7.14	8.58	1.29	11.48	1.75
3	25.24	7.14	25.11	9.48	30.46	10.04
4	30.10	19.05	42.92	37.50	38.85	41.05
5	36.89	61.90	23.18	51.72	18.76	47.16

Source: 2002 Survey data, authors' computation

Table 10 performs the same sort of exercise using as a measure of tax evasion the extent to which individuals buy goods on which they believe tax has been evaded. The negative correlation between perceived quality and evasion comes out even more strongly in this table than in the previous table. The reason may be the following. If willingness to pay taxes has a strong "social-conscience" component, then a person who perceives a high quality of government services may wish to impose his views on others by refusing to buy goods from the underground economy. Becker (1974) discusses such behaviour in his theory of social interactions.

Our quality of government services index was but one measure of the manner in which individuals perceive government. We asked several other questions covering several more detailed dimensions of government services and correlated these impressions with the willingness to pay taxes. Our results on these sub-indices conformed to the results discussed above and are summarized in Table 11.

The following Table 11 shows the cross-correlation of evasion with these questions measuring quality of the government services. Taken *en gros* Table 11 suggests that people who think well of their government are more inclined to pay their taxes than are people who bear a grudge against the state. The only possible discrepancy in this table is that those who believed corruption was a big problem tended to evade less than those who believed corruption was not a problem. We say "possible" discrepancy because we could also surmise that those who see corruption as a major problem could also be those

who would like to evade taxes but who do not have ability or knowledge to bribe tax officials.

Table 11: Spearman's correlation coefficients of measures of government services and morality with participation in underground economy for Czech and Slovak Republics 2002

Scale questions 1 to 5 (1=very satisfied, absolutely agree; 2=satisfied, agree, etc.)	Buying underground		Working underground	
	CR	SR	CR	SR
Satisfaction with country economic development	-0.07**	-0.03	0.02	0.02
Legal system now and ten years ago (1=much improved; 5=much worse)	-0.05*	0.02	0.04	0.06
Law and order should be always obeyed	-0.19***	-0.16***	-0.27***	-0.15***
Is corruption the major problem of your country?	-0.11***	-0.02	-0.13***	0.03
Satisfaction with government services	-0.11***	-0.05	0.02	-0.05
Is tax evasion moral?	0.31***	0.25***	0.36***	0.21***
Is a misuse of social benefits moral?	0.25***	0.18***	0.37***	0.21***

*** Significant on 1%, ** significant on 5%, * significant on 10% levels.

3.2 Interpretations

The skeptical reader may ask whether the person who evades taxes justifies his evasion by citing that the quality of government services is low. This is a legitimate objection to our notion that tax evasion is a form of social protest. We answer this objection by the roundabout means of exploring the relation between evasion and morality. We wish to see if a person who believes it is moral to evade tends to evade more than a person who

believes it is not moral to evade. Obviously there is a strong tendency for an individual to justify evasion by an appeal to morality. Then we wish to see if a person who believes it is moral to evade also tends to see the quality of government services as being poor. This last relation can show up whether those who state the quality of government services is low do so in order to justify their evasion.

Our survey asked whether a person believed tax evasion to be moral. No one wishes to think badly of himself. A heavy evader may justify his shirking by suggesting that it is moral to evade. One component of morality is whether one thinks others will think badly of one. Table 12a shows a cross-tabulation of evasion with a person's belief about how his family would react to the evasion, taken from our previous 2000 survey. Table 12b is the same as Table 12a but presents the results from our most recent survey, that in 2002. Both tables suggest that family approval is positively correlated with evasion.

Table 12a: Percent of respondents cross-tabulated by frequency of underground work and their assessment of its family reaction (2000)

Family reaction (1=surely agree with evasion, 3=do not know, 4=probably do not agree, 5=surely do not agree)	Frequency of underground work					
	Often		Occasionally		Never	
	CR	SR	CR	SR	CR	SR
1	38,89	83,33	16,44	15,07	4,46	9,86
2	41,67		38,81	46,58	18,71	22,77
3	16,67	16,67	34,70	30,14	36,98	34,98
4			8,22	6,85	23,88	22,07
5	2,78		1,83	1,37	15,97	10,33

Source: 2000 Survey data, authors' computation

Table 12b: Percent of respondents cross-tabulated by frequency of underground work and their assessment of its family reaction (2002)

Family reaction (1=surely agree with evasion, 3=do not know, 4=probably do not agree, 5=surely do not agree)	Frequency of underground work					
	Often		Occasionally		Never	
	CR	SR	CR	SR	CR	SR
1	55,26	46,15	17,70	15,49	5,20	8,49
2	34,21	38,46	54,07	50,70	26,02	24,76
3	7,89		10,05	11,27	15,99	12,50
4	2,63	7,69	16,27	21,13	31,47	32,08
5		7,69	1,91	1,41	21,32	22,17

Source: 2002 Survey data, authors' computation

We also asked respondents to assess their own tax morality directly. Table 13 shows a cross-tabulation of our evasion variable with a morality variable. As could be expected, there is a strong positive correlation between the frequency of evasion and a belief that evasion is moral.

Table 13a: Cross-tabulation of morality with frequency of evasion for Czech and Slovak Republics 2000

Morality index (1=I believe evasion is strongly moral, 5=strongly immoral)	Frequency of underground work					
	Often		Occasionally		Never	
	CR	SR	CR	SR	CR	SR
1	17,65	16,67	2,70		0,41	2,32
2	26,47	50,00	18,92	27,40	7,19	12,53
3	50,00	33,33	59,01	61,64	43,57	50,35
4	2,94		18,47	10,96	40,11	28,07
5	2,94		0,90		8,71	6,73

Source: 2000 Survey data, authors' computation

Table 13b: Cross-tabulation of morality with frequency of evasion for Czech and Slovak Republics 2002

Morality index (1=strongly moral, 5=strongly immoral)	Frequency of underground work					
	Often		Occasionally		Never	
	CR	SR	CR	SR	CR	SR
1	8,11		2,00	7,14	0,92	4,60
2	27,03	83,93	15,50	8,57	4,86	2,42
3	56,76	16,07	63,00	48,57	37,71	35,59
4	8,11		17,00	15,71	40,08	25,67
5			2,50	20,00	16,43	31,72

Source: 2002 Survey data, authors' computation

Feeling that evasion is a moral activity may have something to do with whether one perceives the quality of government goods one receives to be unsatisfactory given the amount of tax one pays. Table 14 cross-tabulates self-reported measures of whether one believes tax evasion to be moral with beliefs about the quality of government services.

Table 14: Cross-tabulation of morality with government service index for Czech and Slovak Republics 2000

Morality index (1=strongly moral, 5=strongly immoral)	Government service index (1=very satisfied, 5=very unsatisfied)									
	1		2		3		4		5	
	CR	SR	CR	SR	CR	SR	CR	SR	CR	SR
1		50,00	1,00	10,00	0,74	2,17	1,02	3,21	3,07	6,07
2		50,00	14,00		7,81	4,35	5,58	3,74	9,21	4,05
3	66,67		29,00	30,00	43,49	32,61	45,43	35,83	46,05	41,30
4	33,33		34,00	20,00	36,80	34,78	36,80	31,55	27,63	15,79
5			22,00	40,00	11,15	26,09	11,17	25,67	14,04	32,79

Source: 2000 Survey data, authors' computation

The table shows no obvious pattern of correlation and formal calculations of correlation failed to turn up any significant relation between the variables on either axis of the table. This is an encouraging result in the sense that morality, as a deep disposition, should not influence perception. It seems that, using tabular analysis, the correlation we found between the perceived quality of government services and tax evasion is not spurious.

3.2 Multivariate Analysis

Cross-tabulations can give us clues about the relations between variables but suffer from their limited-dimensionality. The present section is a brief multivariate analysis that tries to isolate the effect of perceived quality of government services and the willingness to evade taxes. Tables 15 shows the degree of tax evasion (frequent=1, sometimes=2, never=3) regressed on education, and sex, whether a person saw his economic situation deteriorate from the previous year, the gap between his actual and desired income, his assessed probability and penalty for being caught, and his perceived quality of government services. The first column of regression coefficients suggests that Czech and Slovak taxpayers evade for both instrumental and protest reasons.

Table 15. Results of the logit estimation. Standard errors are in parenthesis.

Variable	(1)	(2)	(3)	Marginal effects ∂P/∂x on evading categories. Specification (3)		
				frequent	sometimes	never
Constant	1.779*** (0.320)	1.779*** (0.209)	1.715*** (0.270)			
Gap between actual and desirable income	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000	0.000	0.000
Female	0.173*** (0.131)	0.290*** (0.096)	0.295*** (0.097)	-0.041	-0.074	0.114
Primary school education		-0.736 (0.693)	-0.767 (0.759)	0.172	0.124	-0.295
Apprenticeship (2 years)	-0.521*** (0.269)	-0.554*** (0.205)	-0.600*** (0.212)	0.109	0.127	-0.236
Apprenticeship (3-4 years) without diploma	-0.454*** (0.226)	-0.560*** (0.186)	-0.591*** (0.193)	0.090	0.139	-0.229
Secondary vocational without diploma	-0.354** (0.223)	-0.475** (0.193)	-0.492** (0.198)	0.078	0.115	-0.193
Grammar school with general diploma	-0.092 (0.724)	-0.621 (0.464)	-0.689 (0.431)	0.147	0.121	-0.268
Is your household worse off compared a year ago?	0.184 (0.256)	-0.010 (0.151)	-0.041 (0.148)	0.006	0.010	-0.016
Probability of being caught	0.017*** (0.002)	0.013*** (0.002)	0.013*** (0.002)	-0.002	-0.003	0.005
Perceived tax penalty	-0.012 (0.065)		0.005 (0.062)	-0.001	-0.001	0.002
Missing perceived tax penalty			0.190 (0.193)	-0.026	-0.048	0.073
Unsatisfied with governmental services	-0.126 (0.157)	0.027 (0.109)	0.035 (0.110)	-0.005	-0.009	0.014
Very unsatisfied with governmental services	-0.721*** (0.184)	-0.331*** (0.126)	-0.322*** (0.123)	0.050	0.076	-0.127
Observations	490	901	901			
R-square adj.	0.162	0.109	0.106			

* Significant on 10 percent level, ** Significant on 5 percent level, *** Significant on 1 percent level..
Marginal effects by rows must sum to zero as the probabilities must sum to one and the marginal effects are the derivatives of the probabilities.

The higher the assessed probability of being caught, and the higher the perceived quality of government services, the lower the level of tax evasion. More specifically, a one point increase in the dissatisfaction with government services leads to a 5% greater chance of

someone becoming a frequent evader and a 12% lesser chance of someone staying in the category of never evading. The problem with this first column of coefficients is that 411 respondents (nearly 46 percent of the sample) could not be analyzed because they did not provide an answer to how large they believed is the size of the penalty for evasion. If there is a systematic reason for not answering this question our regression may suffer from selection bias. The second column of Table 15 provide analysis without perceived penalty, while the third column reintroduces these non-respondents by adding a dummy variable which has 1 for respondents and 0 for non-respondents to the question of what the perceived penalty is. This reintroduces non-respondents into the sample without biasing other coefficients. The penalty variable is not significant , however quality of government service retains its significance.

4. Conclusion

The present paper has analysed tax evasion in the Czech and Slovak Republics by using a 2002 survey of 1089 Czechs and 501 Slovaks. We also analysed a more limited survey of Hungary and Poland. We have focused our attention on whether people who believe they are getting quality services are more willing to pay their taxes than are the disgruntled. We wish to do this in order to help governments develop efficient, minimally intrusive tools for encouraging people to pay taxes. The prevailing thinking in government and among academics has been that coercion is the way to get people to pay. Tax withholding already takes away much choice from individuals and the threat of audits and penalties is sustained by thousands of civil servants who form an elite caste of government with

extraordinary powers of coercion. Economists by and large have made punitive enforcement the subject of their theoretical studies. Very few are those who have suggested that people may be convinced to pay their taxes without being prodded by inspectors. Friedrich Schneider is among the few to have suggested that tax evasion may be a form of protest against government. In all four countries of our survey we found strongly that those who believe they are getting quality government services also tend to evade much less than those who do not believe they are getting quality services. A government keen on reducing tax evasion cannot just bark commands at its subjects. Governments are constrained in their tax collection by the perceptions people have of the quality of government services they receive. The Soviets used to say of their leaders "You pretend to pay us, and we pretend to work." The present paper suggests that governments that pretend to provide quality services will preside over a mass that pretends to respect the tax code.

 We noted that tax evasion by individuals is on the rise in both republics. We sought to explain why people evade taxes in both republics and found that, among other forces driving tax evasion, the willingness of citizens to pay increases as they perceive the quality of government services to be good. A similar finding holds for Hungary, and Poland, though our survey for these countries was more limited than that for the Czech and Slovak Republics.

References

Allingham, Michael G. and Agnar Sandmo (1972). "Income Tax Evasion: A Theoretical Analysis." *Journal of Public Economics*, 1:323-338.

Andreoni, James, Brian Erard and Jonathan Feinstein (1998). "Tax Compliance." *Journal of Economic Literature*, 36:818-60.

Baldry, Jonathan C. (1987). "Income Tax Evasion and the Tax Schedule: Some Experimental Results." *Public Finance*, 42:357-83.

Becker, Gary S. (1974). "A Theory of Social Interactions." *Journal of Political Economy*, 82(6), 1063-93.

Browning, Edgar K. (1976). "The Marginal Cost of Public Funds." *Journal of Political Economy*, 84(2), 283-98.

Christian, Charles W. "Voluntary Compliance with the Individual Income Tax: Results from the TCMP Study." In *The IRS Research Bulletin*, 1993/1994, Publication 1500 (Rev. 9-94). Washington, D.C. Internal Revenue Service, 1994.

Clotfelter, Charles T. "Tax Evasion and Tax Rates: An Analysis of Individual Returns." *Review of Economics and Statistic*, 65:363-373.

Elfers, Henck, Russel H. Weigel, and Dick J. Hessing (1987). "The Consequences of Different Strategies for Measuring Tax Evasion Behavior." *Journal of Economic Psychology*, 8:311-37.

Giles, Ian. "The Underground Economy: Minimizing the Size of Government." In *How To Use the Fiscal Surplus*. Edited by Herbert Grubel. Vancouver: The Fraser Institute, 2000.

Hanousek Jan, and Filip Palda " Tax evasion in the Czech and Slovak Republics : A Tale of Twins." In press for *The Informal Economy in Transition Countries : Measurement, and Implications for Policy*. Edited by Boyan Belev and published by the World Bank in partnership with the Bertelsman Group.

Horry, Isabella, Filip Palda and Michael A. Walker (1992). *Tax Facts 8*, Vancouver: Fraser Institute.

Matsusaka, John, and Filip Palda (1993). "The Downsian Voter Meets the Ecological Fallacy." *Public Choice*, 77:855-878.

Palda, Filip (1998). "Evasive Ability and the Efficiency Cost of the Underground Economy." *Canadian Journal of Economics*, 31:1118-1138.

Scholz, John T. and Neil Pinney. "Do Intelligent Citizens Free Ride? The Duty Heuristic, Low-Information Rationality, and Cheating on Taxes." Unpublished manuscript, Department of Political Science, State University of New York, Stony Brook, 1993.

Slemrod, Joel and Shlomo Yitzhaki (2000). "Tax Avoidance, Evasion, and Administration." *NBER Working Paper 7473*.

Scotchmer, Suzanne (1989). "Who Profits from Taxpayer Confusion?" *Economics Letters*. 29:49-55.

Sorensen, Peter Birch (1994). "From the Global Income Tax to the Dual Income Tax: Recent Tax Reforms in the Nordic Countries." *International Tax and Public Finance*, 1:57-79.

U.S. General Accounting Office. "Tax Administration: Profiles of Major Components of the Tax Gap." Washington, DC:GAO/GGD-90-53BR, April 1990.

Appendix A

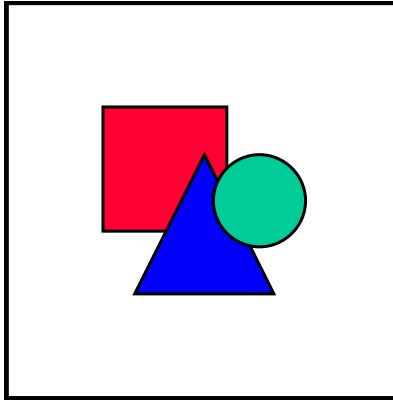**Table A1: Structure of informal sector in Czech Republic: relative % shares**

	Total sample	Purchase of informal goods/ services			Active engagement in informal activities					
					Have you ever had.. ?			Informal Salary [CZK]		
		Often	*Sometimes*	*Never*	*Often*	*Sometimes*	*Never*	*<10000*	*<10000, 15000)*	*>=15000*
Total	**1041**	**103**	**470**	**464**	**38**	**209**	**788**	**154**	**14**	**9**
Sex										
Male	49,3	60,2	51,1	45,5	73,7	59,8	45,6	60,4	50,0	88,9
Female	50,7	39,8	48,9	54,5	26,3	40,2	54,4	39,6	50,0	11,1
Age										
18 to 25 years	18,8	19,4	19,4	18,1	21,1	23,9	17,3	25,3	21,4	11,1
26 to 35 years	23,2	20,4	25,3	21,6	15,8	27,3	22,5	25,3	7,1	22,2
36 to 45 years	20,6	21,4	20,6	20,5	26,3	22,5	19,7	25,3	21,4	22,2
46 to 55 years	22,8	30,1	20,6	23,1	23,7	16,7	24,5	15,6	21,4	44,4
56 to 65 years	14,7	8,7	14,0	16,8	13,2	9,6	16,1	8,4	28,6	0,0
Level of education										
Primary	18,7	23,3	17,7	18,8	21,1	19,6	18,4	20,1	21,4	11,1
Without GCE	38,8	36,9	42,1	36,0	39,5	43,1	37,7	44,2	21,4	22,2
With GCE	32,6	29,1	31,9	34,1	34,2	31,6	32,6	33,1	50,0	44,4
Higher	9,9	10,7	8,3	11,2	5,3	5,7	11,3	2,6	7,1	22,2
Level of income[CZK]										
< 10.000	46,8	42,7	48,1	46,1	31,6	39,7	49,4	39,6	14,3	11,1
10.001 to 15.000	32,2	33,0	29,1	35,3	34,2	33,0	31,9	39,0	35,7	11,1
15.001 to 20.000	11,0	12,6	11,7	9,9	13,2	14,4	9,9	14,3	21,4	11,1
20.001 to 25.000	3,4	3,9	4,5	2,2	7,9	5,7	2,5	4,5	21,4	22,2
25.001 to 30.000	1,7	2,9	2,1	1,1	2,6	3,8	1,1	1,3	7,1	22,2
30.001 to 40.000	0,4	1,0	0,4	0,2	2,6	0,0	0,4	0,0	0,0	11,1
40.001 to 50.000	0,3	1,0	0,4	0,0	0,0	0,5	0,3	0,0	0,0	11,1
>= 50.001	0,1	0,0	0,0	0,2	0,0	0,0	0,1	0,0	0,0	0,0
Rejected answer	4,2	2,9	3,6	5,0	7,9	2,9	4,4	1,3	0,0	0,0

Table A2: Structure of informal sector in Slovak Republic: relative % shares

	Total sample	Purchase of informal goods/ services			Active engagement in informal activities					
					Have you ever had.. ?			Informal Salary [CZK]		
		Often	Sometimes	Never	Often	Sometimes	Never	<10000	<10000, 15000)	>=15000
Total	**509**	**43**	**234**	**232**	**13**	**71**	**424**	**50**	**1**	**1**
Sex										
Male	51,9	65,1	56,8	44,4	92,3	69,0	47,9	72,0	100,0	100,0
Female	48,1	34,9	43,2	55,6	7,7	31,0	52,1	28,0	0,0	0,0
Age										
18 to 25 years	13,4	11,6	15,0	12,1	23,1	14,1	13,0	10,0	0,0	0,0
26 to 35 years	29,1	30,2	30,8	27,2	30,8	36,6	27,6	38,0	0,0	0,0
36 to 45 years	30,3	44,2	27,8	30,2	38,5	29,6	30,2	28,0	100,0	100,0
46 to 55 years	21,4	14,0	21,8	22,4	7,7	14,1	23,1	18,0	0,0	0,0
56 to 65 years	5,9	0,0	4,7	8,2	0,0	5,6	6,1	6,0	0,0	0,0
Level of education										
Primary	6,5	9,3	6,4	6,0	15,4	5,6	6,4	8,0	0,0	0,0
Without GCE	39,1	44,2	38,9	38,4	23,1	52,1	37,3	46,0	0,0	0,0
With GCE	41,5	32,6	44,9	39,7	61,5	32,4	42,5	40,0	100,0	100,0
Higher	13,0	14,0	9,8	15,9	0,0	9,9	13,9	6,0	0,0	0,0
Level of income[CZK]										
< 10.000	60,5	69,8	56,4	62,9	46,2	56,3	61,6	62,0	0,0	0,0
10.001 to 15.000	25,5	11,6	31,2	22,4	38,5	25,4	25,2	34,0	0,0	0,0
15.001 to 20.000	5,5	4,7	5,1	5,2	0,0	5,6	5,7	2,0	0,0	0,0
20.001 to 25.000	2,2	4,7	1,7	2,2	0,0	2,8	2,1	0,0	0,0	0,0
25.001 to 30.000	0,8	2,3	0,9	0,4	0,0	1,4	0,7	0,0	0,0	0,0
30.001 to 40.000	0,2	0,0	0,0	0,4	0,0	1,4	0,0	2,0	0,0	0,0
40.001 to 50.000	0,2	0,0	0,4	0,0	0,0	1,4	0,0	0,0	0,0	0,0
Rejected answer	5,1	7,0	4,3	5,6	15,4	5,6	4,7	0,0	100,0	100,0

SHADOW ECONOMY
1102046

TIME	FILL ACTUAL TIME	HOURS		
A		MINUTES		
QUESTIONS ABOUT YOU AND YOUR FAMILY				
RSEX	SEX OF RESPONDENT	MALE		1
		FEMALE		2
AGE	**HOW OLD ARE YOU?**			
LIMIT SAMPLE: AGE BETWEEN 18 AND 65				
EKO	**ARE YOU ECONOMICALLY ACTIVE AT PRESENT?**	**YES**		1
		NO		2
*(*LIMIT THE SURVEY ONLY TO ECONOMICALLY ACTIVE PERSONS)*				
REDU	**YOUR HIGHEST ACHIEVED EDUCATION LEVEL:**	**PRIMARY**		1
		APPRENTICESHIP (2 YEARS)		2
		APPRENTICESHIP (3-4 YEARS), WITHOUT GCE		3
		SECONDARY VOCATIONAL WITH GCE		4
		GRAMMAR SCHOOL WITH GCE		5
		HIGHER		6
		WITHOUT SCHOOL EDUCATION		8
RINC	**CHOOSE A RANGE OF YOUR NET MONTHLY INCOME; INCLUDING SOCIAL BENEFITS:**	LESS THAN 10.000 KČ		1
		10.001 – 15.000 Kč		2
		15.001 – 20.000 Kč		3
		20.001 – 25.000 Kč		4

		25.001 – 30.000 Kč	5
		30.001 – 40.000 Kč	6
		40.001 – 50.000 Kč	7
		MORE THAN 50.001 KČ	8
		REJECTING A RESPONSE (DO NOT OFFER)	9
HINC	**CHOOSE A RANGE OF YOUR HOUSEHOLD NET MONTHLY INCOME; INCLUDING SOCIAL BENEFITS**	LESS THAN 10.000 KČ	1
		10.001 – 20.000 Kč	2
		20.001 – 30.000 Kč	3
		30.001 – 50.000 Kč	4
		50.001 – 75.000 Kč	5
		75.001 – 100.000 Kč	6
		MORE THAN 100.001 Kč	7
		REJECTING A RESPONSE (DO NOT OFFER)	8

A01	**DOES ANY MEMBER OF YOUR HOUSEHOLD RECEIVE SOCIAL SECURITY BENEFITS?**	YES	1
		NO	2

A02	**WHAT IS A MINIMAL MONTHLY INCOME, WHICH SHOULD COVER NEEDS OF YOUR HOUSEHOLD IN YEAR 2002?**

A03	**WHAT ARE THE AVERAGE MONTHLY EXPENDITURES OF YOUR HOUSEHOLD ON FOLLOWING ITEMS:** *All numbers in CZK*	**HOUSING**	
		TELECOMMUNICATION	
		ELECTRICITY	
		OTHER	

A04	**WHAT IS THE AMOUNT OF CASH YOU ON AVERAGE HOLD IN A WEEK TIME?** *All numbers in CZK*

A05	**YOUR CURRENT FAMILY INCOME WHEN COMPARING WITH THE INCOME IN YEAR 2001:**	**IS STRONGLY HIGHER**	1
		IS A BIT HIGHER	2
		IS APPROXIMATELY THE SAME	3
		IS A BIT LOWER	4
		IS STRONGLY LOWER	5
A06	**YOUR CURRENT FAMILY INCOME WHEN COMPARING WITH THE INCOME FIVE YEARS AGO:**	**IS STRONGLY HIGHER**	1
		IS A BIT HIGHER	2
		IS APPROXIMATELY THE SAME	3
		IS A BIT LOWER	4
		IS STRONGLY LOWER	5

A07	**YOU SURELY KNOW THAT THERE IS ALSO INFORMAL / SHADOW ECONOMY IN THE CZECH (SLOVAK) REPUBLIC.**	YES	1
		NO	2

EXPLAIN THE TERM „SHADOW ECONOMY"

A08A	**ACCORDING TO YOU, HOW MANY ADULT PEOPLE OUT OF TEN IN THE CZECH REPUBLIC HAVE ALSO AN INCOME FROM SHADOW ECONOMY**		
		I DO NOT KNOW	98
A08B	**ACCORDING TO YOU, HOW MANY ADULT PEOPLE OUT OF TEN IN YOUR NEIGHBORHOOD HAVE ALSO AN INCOME FROM SHADOW ECONOMY?**		
		I DO NOT KNOW	98
A09	**DO YOU THINK THAT TO HAVE AN UNDECLARED (UNTAXED) INCOME IS:**	**STRONGLY MORAL**	1
		MORAL	2
		NEITHER MORAL, NOR IMMORAL	3
		IMMORAL	4
		STRONGLY IMMORAL	5
		I DO NOT KNOW	98
A10	**WHAT WILL BE A REACTION OF YOUR FAMILY AND FRIENDS IF THEY FIND OUT THAT YOU HAVE UNDECLARED – (UNTAXED) INCOME?**	**THEY SURELY AGREE**	1
		THEY PROBABLY AGREE	2
		THEY PROBABLY DO NOT AGREE	3
		THEY SURELY DO NOT AGREE	4
		I DO NOT KNOW	98
A11	**SUPPOSE YOU OWE TO THE STATE TAX PAYMENT IN AMOUNT 100.000 KČ. HOW MANY, DO YOU THINK YOU HAVE TO PAY A PENALTY AFTER A YEAR**		
		I DO NOT KNOW	98
A12	**ON A SCALE OF 0 TO A 100, SUPPOSING THAT 0 IS BEING SURE YOU WILL NOT BE CAUGHT AND 100 BEING SURE YOU WILL BE, WHAT WOULD BE THE NUMBER CORRESPONDING TO THE RISK OF YOUR BEING CAUGHT BUYING UNDECLARED GOODS AND SERVICES (OR JOBS)?**		
A13	**ARE YOU SATISFIED WITH THE WAY THE POLITICAL SYSTEM (DEMOCRACY) IS FUNCTIONING IN YOUR COUNTRY?**	**VERY SATISFIED**	1
		SATISFIED	2
		NEITHER SATISFIED, NOR DISSATISFIED	3
		DISSATISFIED	4
		VERY DISSATISFIED	5

		I DO NOT KNOW	98
A14	ARE YOU SATISFIED WITH THE ECONOMIC DEVELOPMENT OF YOUR COUNTRY?	VERY SATISFIED	1
		SATISFIED	2
		NEITHER SATISFIED, NOR DISSATISFIED	3
		DISSATISFIED	4
		VERY DISSATISFIED	5
		I DO NOT KNOW	98
A15	IF YOU COMPARED THE FUNCTIONING OF THE LEGAL SYSTEM IN YOUR COUNTRY NOW AND 10 YEARS AGO, WHICH STATEMENT WOULD BEST FIT YOUR EVALUATION?	MUCH IMPROVED	1
		SLIGHTLY IMPROVED	2
		UNCHANGED	3
		SLIGHTLY WORSE	4
		MUCH WORSE	5
		I DO NOT KNOW	98
A16	IT IS CLAIMED THAT THE LAW SHOULD ALWAYS BE OBEYED. DO YOU AGREE WITH THIS STATEMENT?	VERY MUCH AGREE	1
		SLIGHTLY AGREE	2
		NEITHER AGREE NOR DISAGREE	3
		SLIGHTLY DISAGREE	4
		VERY MUCH DISAGREE	5
		I DO NOT KNOW	98
A17	CURRENTLY THE CORRUPTION (ESP. IN THE PUBLIC SECTOR) IS FREQUENTLY CONSIDERED TO BE ONE OF MAJOR PROBLEMS OF YOUR COUNTRY. TO WHAT EXTENT DO YOU AGREE WITH THIS STATEMENT?	VERY MUCH AGREE	1
		SLIGHTLY AGREE	2
		NEITHER AGREE NOR DISAGREE	3
		SLIGHTLY DISAGREE	4
		VERY MUCH DISAGREE	5
		I DO NOT KNOW	98
A18	IF THE CHANCE TO BE CAUGHT WHEN EVADING TAXES WERE ZERO, WHAT WOULD BE THE PROBABILITY THAT YOU ENGAGED INTO SUCH ACTIVITY?	VERY HIGH	1
		HIGH	2
		LOW	3
		VERY LOW	4
		I DO NOT KNOW	98

THERE ARE DIFFERENT POLICIES PROPOSED TO FIGHT THE TAX EVASION. DO YOU PERSONALLY BELIEVE THAT IN YOUR COUNTRY:

A19A	IF THE PROBABILITY TO BE CAUGHT WERE TO DOUBLE THE AMOUNT OF TAX EVASION WOULD:	FALL A LOT	1
		FALL SLIGHTLY	2
		NOT CHANGE	3
		INCREASE SLIGHTLY	4
		INCREASE A LOT	5
		I DO NOT KNOW	98
A19B	IF THE PENALTY WHEN CAUGHT EVADING TAXES WERE TO DOUBLE THE AMOUNT OF TAX EVASION WOULD:	FALL A LOT	1
		FALL SLIGHTLY	2
		NOT CHANGE	3
		INCREASE SLIGHTLY	4
		INCREASE A LOT	5
		I DO NOT KNOW	98
A19C	IF TAXES WERE LEVIED BY THE EUROPEAN UNION INSTEAD OF THE GOVERNMENT OF YOUR COUNTRY THE AMOUNT OF TAX EVASION WOULD:	FALL A LOT	1
		FALL SLIGHTLY	2
		NOT CHANGE	3
		INCREASE SLIGHTLY	4
		INCREASE A LOT	5
		I DO NOT KNOW	98
A20	DO YOU BELIEVE THAT THE MISUSE OF SOCIAL SECURITY BENEFITS IS:	WITHOUT ANY DOUBT MORAL	1
		MORE MORAL THAN IMMORAL	2
		NEITHER MORAL NOR IMMORAL	3
		MORE IMMORAL THAN MORAL	4
		WITHOUT ANY DOUBT IMMORAL	5
		I DO NOT KNOW	98
A21	WHAT PERCENTAGE OF INDIVIDUALS ARE MISUSING SOCIAL SECURITY BENEFITS IN YOUR COUNTRY?		

A22	HAVE YOU EVER BOUGHT GOODS AND SERVICES COMING FROM AN UNDECLARED WORK?	Year 2002	Year 2000	Year 1997
	OFTEN	1	1	1
	OCCASIONALLY	2	2	2
	NEVER	3	3	3
A23	HAVE YOU EVER BEEN ENGAGED IN UNDECLARED SECTOR?			

	Year 2002	Year 2000	Year 1997
OFTEN	1	1	1
OCCASIONALLY	2	2	2
NEVER	3	3	3

A24	**WHAT IS YOUR INCOME FROM UNDECLARED JOB**	**LESS THAN 10.000 KČ**	1
		10.001 – 15.000 KČ	2
		15.001 – 20.000 KČ	3
		20.001 – 25.000 KČ	4
		25.001 – 30.000 KČ	5
		30.001 – 35.000 KČ	6
		35.001 – 40.000 KČ	7
		MORE THAN 40.001 KČ	8
		NOT RESPONDING	9

THANK YOU FOR YOUR COOPERATION

TIME B	Fill actual time	HOURS		
		MINUTES		

ADDITIONAL INFORMATION

SIZE	Size of town:	LESS THAN 999 HABITANTS	1
		1000 - 4999 HABITANTS	2
		5000-19999 HABITANTS	3
		20000-99999 HABITANTS	4
		100000 AND MORE HABITANTS	5
REG	Region:	PRAGUE	1
		MIDDLE BOHEMIA	2
		SOUTHERN BOHEMIA	3
		WESTERN BOHEMIA	4
		NORTHERN BOHEMIA	5
		EASTERN BOHEMIA	6
		SOUTHERN MORAVIA	7
		NORTHERN MORAVIA	8

Appendix C

Hungary and Poland

Table C1. Values and 95%-confidence intervals for relative frequencies of different level of tax evasion. Hungary 1995, 1999, 2000, 2002.

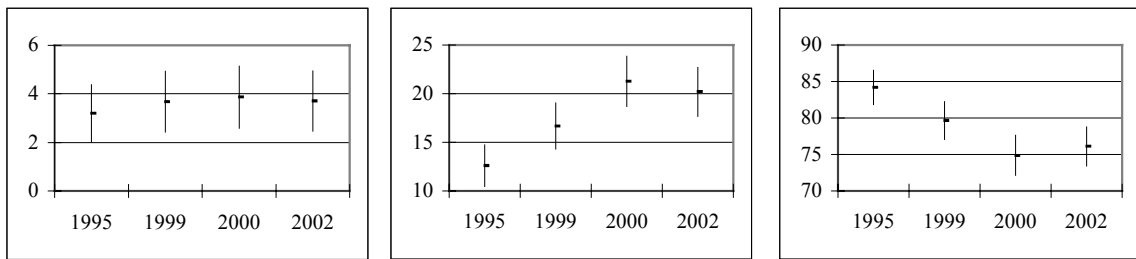| Year	Often	Sometimes	Never
1997	3,2% (2,0%, 4,4%)	12,6% (10,5%, 14,7%)	84,2% (81,9%, 86,5%)
2000	3,9% (2,6%, 5,1%)	21,3% (18,7%, 23,9%)	74,9% (72,1%, 77,6%)
2002	3,7% (2,5%, 4,9%)	20,2% (17,7%, 22,7%)	76,1% (73,4%, 78,8%)

Figure 1: Graphs for 95% confidence intervals

Source: 2000 and 2002 survey data, authors' computation

Table C2. Values and 95%-confidence intervals for relative frequencies of different level of tax evasion. Poland 1995, 1999, 2000, 2002.

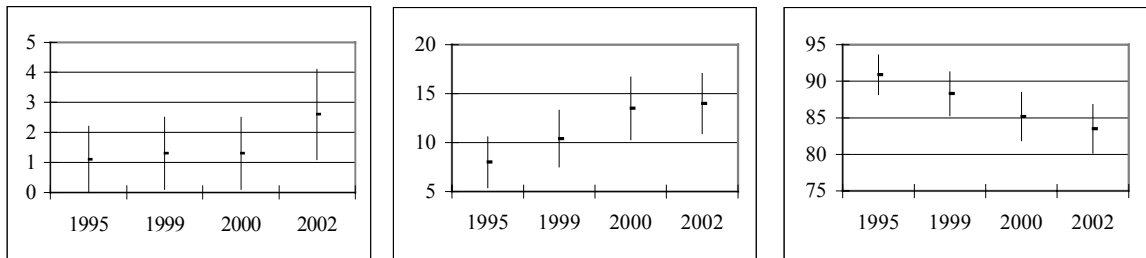| Year	Often	Sometimes	Never
1997	1,1% (0,0%, 2,2%)	8,0% (5,4%, 10,6%)	90,9% (88,2%, 93,6%)
2000	1,3% (0,1%, 2,5%)	13,5% (10,3%, 16,7%)	85,2% (81,9%, 88,5%)
2002	2,6% (1,1%, 4,1%)	14,0% (10,9%, 17,1%)	83,5% (80,2%, 86,8%)

Figure 2: Graphs for 95% confidence intervals

Source: 2000 and 2002 survey data, authors' computation

Table C3: Cross-tabulation of government service index with evasion for Poland and Hungary 2002

Government service index (1=very satisfied, 5=very unsatisfied)	Frequency of underground work					
	Often		**Occasionally**		**Never**	
	PL	HU	PL	HU	PL	HU
1	0,0%	0,0%	0,0%	0,0%	0,3%	0,4%
2	5,3%	14,3%	8,7%	5,0%	13,5%	10,7%
3	15,8%	0,0%	30,4%	15,0%	21,3%	38,3%
4	42,1%	57,1%	39,1%	50,0%	38,9%	32,1%
5	36,8%	28,6%	21,7%	30,0%	25,9%	18,6%

PL   Spearman rho -0.03 (0.43)
HU   Spearman rho -0.09 (0.01)
Source: 2002 Survey data, authors' computation