

DETERMINANTS OF OPTIMISTIC
EXPECTATIONS IN THE
TRANSITION COUNTRIES

by

Evghenia Iarina

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Abstract

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Head of the State Examination Committee: Mr. Volodymyr Sidenko,
Senior Economist
Institute of Economy and Forecasting,
National Academy of Sciences of Ukraine

The main objective of this paper is to identify the determinants of optimistic expectations. The second objective is to find out which factors have the largest impact on formation of optimistic expectations. The economic motivation of the research is constructed on the basis of previous studies that showed that optimistic expectations do influence economic behavior both on individual and firm's level. To achieve the first objective I use data from the Life in Transition Survey that covers 29 transition countries. I come to general conclusion that not material well-being determines optimistic expectations. In contrast, optimistic expectations are determined by such factors as satisfaction with economic and political situation and life satisfaction, as well as by factors that reflect the level of trust towards government, society and financial institutions. To achieve the second goal I analyze the size of marginal effects and come to the conclusion that variables that reflect subjective perception of current life-circumstances have the largest effect on determination of optimistic expectations.

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I dedicate this work to my mother who is an optimist in spite of any life circumstances.

GLOSSARY

CEA- Census Enumeration Areas

CEB – Central Eastern and Baltic Countries

CIS+M – Commonwealth of Independent States and Mongolia

CDF – Cumulative Distribution Function

PSU – Primary Sampling Units

SEE – South-Eastern European Countries

FYROM - Former Yugoslav Republic of Macedonia

Chapter 1

INTRODUCTION

Different social sciences try to explain people's past behavior, as well as predict their future actions (savings, consumption and investment). For instance, psychological medicine investigates this question from genetic and environmental points of view. Anthropologists, for instance Gastil (1961), try to distinguish between those social and cultural factors that affect human behavior. In economics researchers use various approaches to determine behavioral characteristics. By studying Dutch twins, Stuube et al. (2005) showed that a part of such notion as life satisfaction can be attributed to heritability. However, about 68% of variance in life satisfaction is due to environmental conditions. Assuming that similarly, "optimism" is only partly attributed to heritability there is room for the study of the social and economic determinants of "optimism". More specific, in this paper I investigate which current and past circumstances make people believe in a better future. Both the effect of material well-being and the effect of individuals' attitudes toward economic and political systems are studied.

Optimism has been shown to influence economic behavior. Ben-David et. al (2006) showed that optimism influences capital structure, investment decisions, risk taking and other aspects of corporate activity. Brown and Taylor (2006) showed the interrelation between optimism level and savings level of households. Hence, if we discover, for instance, that some factor influences optimistic expectations and if it is

possible for a government to influence this factor, then by manipulating this factor governments will be able to influence economic decisions of households by controlling people's sentiments.

This study uses the 'Life in Transition Survey' that was jointly conducted in 2006 by the World Bank and the EBRD. The advantage of using this data set is that its purpose was to shed the light on the level of people's life satisfaction beliefs and attitudes in transition countries. It includes 29 000 observation over 29 transition countries and provides the answers on a whole range of qualitative questions.

As the variable proxying for the level of optimism, the answer to the following question is used: "Children who are born now will have a better life than my generation". The set of dependent variables includes both quantitative and qualitative characteristics, such as expenditures and people's attitude towards government and society in general.

The paper is structured as following. First, we review literature that seems to be most relevant. The second part of the paper contains data description and provides some visual representations of interdependence between dependent and explicative variables. Then, methodology is provided. Results and hypothesis testing is an empirical part that demonstrates attained results and discusses possible econometrics and other problems.

The paper ends up with conclusions and further research recommendations.¹

¹ Different notions are used in this research to indicate "optimism". We treat "optimism", "optimistic expectations", "overconfidence about future good events" and "optimistic beliefs" the same. This is done in order to preserve other authors' notations and because of scarce studies on this topic.

Chapter 2

LITRATURE RIVIEW

Any science has its own methodology to determine a process or phenomenon. Unfortunately, at this point there is scarce knowledge on how to determine expectations. However, there are some studies on determinants of some specific expectations. For instance, Barbosa and Randall (2004) explored the determinants of parents' and teachers' expectations about pupils' ability in Brazil. They included into their regression such variables as parent's education, level of income, child's gender and race, etc. The most important result they came to is that the highest effect has parents' education. In this case, high expectations of good children performance can be seen as for the level of optimism. Our research is much related to Barbosa and Randall's study, as we also approximate the level of optimism by individual's expectations about children's future life. The other feature in common is that we also look for the factors that are important in the formation of optimistic expectations. Another work that discusses the determination of optimism is Arabsheibani et al. (2000). In fact, they investigated how the level of financial optimism is influenced by employment status, i.e. whether the person is self-employed or not. By financial optimism they mean the ability to predict correctly future earnings. If a person overestimates her future financial state she is considered to be financially optimistic. They concluded that entrepreneurs are the most optimistic part of population. But the authors' main findings shows that more educated people are likely to be less optimistic and that males and

married people are more financially optimistic. The intuition provided behind the obtained result is the following: more educated individuals acquire more knowledge to make more accurate and realistic predictions about their future earnings. This information is valuable for our study as we include the same factors (gender, education, marital status) to check whether the results hold for the more general case. However, studies like those two abovementioned are still rare. The reason for this is that researchers still are quite skeptical about studies based on subjective surveys (Angel et al. 1988). Bertrand and Mullainathan (2001) claim that self-reported subjective data can be used only for explicative variables but not for dependent variables. However, following life- and income-satisfaction studies (Labeaga et al. 2007) we do use subjective data for our dependent variable.

The most common practice in literature is to use expectations and beliefs as given, i.e. include them as independent variables. This is related both to theoretical and empirical papers. That is why in this literature review I first examine theoretical studies, where researchers introduce beliefs about future in the utility maximization problem as a new variable. In this kind of studies people's beliefs about the future sometimes take the form of optimism. It happens when individuals overestimate the probability of some good events. That is why we consider that all papers that investigate beliefs about future are in different ways related to our particular study. Moreover, our dependent variable is also a kind of belief about the future. Indeed, the answer to the question "whether people believe that children born now will have better life than their generation" expresses beliefs and these beliefs determine the future economic behavior. The second section is about empirical studies, when scientists explore how optimism affects such

decisions as savings, amount of debt and other economic decisions in real life circumstances.

Theory provides a lot of models that show how individuals act under different circumstances and assumptions. In fact, any theory has its assumptions, but when science goes further, researchers try to weaken existing assumptions to make theory closer to real life. Not surprisingly, the strong assumptions economists make about the rationality of individuals has faced lots of criticism. Economists used to “take as given”, “rational behavior” and “economic incentives” and did not take into consideration emotions, altruism, optimism, expectations, trust. Mullainathan and Thaler (2001) discuss how individuals deviate from rational economic models and come to the conclusion that non-perfect individuals influence market outcomes.

However, the decision making process is much more complex and involves not only rationality but emotions and individual’s features of character that in most cases take the form of beliefs or expectations about the future. Modern economics, in particular behavioral, now focuses more and more on expectations and beliefs, both on the micro and the macro level.

It is well known that taking any decision a rational person maximizes her present and future discounted utility. Early studies did not take into account the role of individuals’ beliefs and expectations; however more recent works in this field do tackle this question. Brunnermeier and Parker’s (2002) theoretical model, for instance, focuses on subjective beliefs that are the probabilities that people assign to some future events. In fact, they compared subjective beliefs with rational ones and made some conclusions on how they influence different economic outcomes. These authors introduced subjective beliefs in several models: portfolio choice model, consumption and

savings model and timing model. In all three cases they compared the results with those obtained for rational individuals, who use the true probabilities of states. Brunnermeier and Parker's (2002) came to the following conclusions: in portfolio theory agents with optimistic beliefs are likely to underdiversify, because they usually overestimate the return on their assets; in consumption-savings model individuals with subjective beliefs usually consume more and save less due to the feature of overestimation of future income and underestimation of uncertainty. In the timing model, they show that with subjective beliefs individuals are likely to underestimate the time that is needed to complete the action and postpone it. Their main conclusion is that rational individuals' behavior does differ from behavior of those with subjective beliefs. They say that, on the one hand, those with subjective beliefs perform poorer. On the other hand, they are more likely to take risks and get higher profits associated with this. The main conclusion of this paper for us is that beliefs do matter. That is why it is so important to understand how they are actually formed.

In fact, game theory that counts for beliefs and emotions got a new name "psychological game theory". Geanakoplos, et al. (1989) are claimed to be pioneers in this field by introducing human beliefs in decision-making process. Later, their work was extended by Battigalli and Dufwenberg (2005), who base their work on statement that the previous research suffers from some number of restrictions. Namely, Geanakoplos, et al. (1989) just introduced initial beliefs into their model, while Battigalli and Dufwenberg used up-dated beliefs, i.e. those changing during the game. The other difference is that in Battigalli and Dufwenberg work others beliefs also influence one's utility, which was not the case previously. In fact, they focus on belief-dependent motivation and try to capture psychological effects which occur in the

process of game. By these they understand regret, anxiety, social respect and sequential reciprocity. In case when motivation depends on beliefs, decision-making process looks differently. Indeed, when an individual cares about social respect his actions are likely to be different from those who do not. It is a good motivation for us to include ideology-related factors into our model such as trust in society. In fact, this study provides us with a lot of useful information. The first thing we pay attention to is that general beliefs about the future are formed by more detailed beliefs, i.e. beliefs about society, political situation and institutions. This gives us the ground to include into our research self-perception factors that indicate attitude towards present political and economic situation. The second important conclusion made by Battigalli and Dufwenberg is that these beliefs play a great role in decision-making mechanism. This fact gives us a valuable motivation for the study.

The second section of literature review focuses more on empirical works and explains the role of optimistic expectations in real-life circumstances.

The understanding of optimistic expectations is important both for individual and corporate decision making. For example, Brown, et al. (2003) investigated the effect of optimistic expectations on size of individual debt. The authors discovered that optimistic expectations are associated with higher individual debt. The same authors, Brown, et al. (2005) further investigate more specific kind of debt, i.e. they studied how financial optimism is related to household mortgage debt. It is not surprising that their results are similar to previous ones, i.e. they found that amount of mortgage debt positively depends on optimistic financial expectations. Brown and Taylor (2006) have shown that financial optimism is negatively related to household savings. In all

three papers by financial optimism they meant high expectations about individual future financial situation. Concerning their conclusion, indeed, we can expect that individuals that expect a worse future for their children will try to protect them by saving more (for education, for instance). On the other hand, respondents that expect to have high earnings in future would rather consume more today accumulating high debt. Similar results are observed in the work by Harris, Loundes and Webster (1999).

Expectations about the future affect entrepreneurial behavior as well. Landier and Thesmar (2007) explore the effect of optimism on debt preferences and capital structure. To detect the level of entrepreneurial optimism they compared the actual firms' development at the end of the year with entrepreneurial expectations about firms' development at the beginning of the year. Namely, they showed that more optimistic entrepreneurs prefer short-term debt and inside financing rather than external financing. On the basis of this research valuable recommendations to investors are made: they should take into account which type of person the entrepreneur is, when writing contracts. The main result for our study out of abovementioned empirical papers is that optimistic expectations indeed affect economic behavior both on individual and firms' level.

In fact, optimism is a notion that is very close to overconfidence. Some scientists try to distinguish these two, however, some economists used to take it as the same. Barros and Silveira (2007) argue that overconfidence is human feature to overestimate the probability of good event, as well as their own skills and control over event. As we observed from previously reviewed studies, most economists used the same logic when introducing optimism in their works. The most general definition of optimism is that "optimism is an

outlook on life such that one maintains a view of the world as a positive place. Optimists generally believe that people and events are inherently good, so that most situations work out in the end for the best.” However, it is unlikely to be that everything always works only in a good way. Things vary much and sometimes they can go better but sometimes worse. That is why such notion as realism exists. In fact, we can treat optimism as a tendency to overestimate the probability of good event. At the same time the definition of overconfidence is that “overconfidence is having unmerited confidence-believing something or someone is capable when they are not”². That is why optimism and overconfidence are related things, though slightly differ.

It was shown that people are in general overconfident about future events. Lichtenstein et al. (1980) in their experimental studies demonstrated that people are likely to be overconfident about certain event that is they assign the higher probability of its happening than the true probability. If things go this way and all people are overconfident by their nature, some can argue that we cannot determine optimism (overconfidence). However, it was also shown that people have different degree of overconfidence, i.e. they do differ in their beliefs. Glaser et al. (2005) compared the degree of overconfidence between professional traders, investment bankers versus a control group. They showed that the degree of overconfidence of professionals is higher. Our study includes individuals of different specialization, level of skills and from different countries. That is why the level of optimism/overconfidence varies much between them and this gives us the right to perform the study.

² wikipedia.org

Many studies are dedicated to optimism/overconfidence and finance. Barros and Silveira (2007) investigate the influence of overconfidence and managerial optimism on capital structure. Their results coincide with previous studies and show that firms that are managed by more optimistic entrepreneurs usually have more debt in their capital structure. They also proved that entrepreneurs (those who run their own business) are likely to be more optimistic and more risky than hired managers. The most important conclusion that they made is that managerial overconfidence/optimism influences capital structure. Previously, Gervais (2002) et al, had reached the similar results in theoretical framework. They showed that overconfidence increases the firm's value. This means that overconfident managers even though less skilled are more preferable for the firm than rational ones. Again, if we find that some factors influence the level of optimisms we will be able to control employees' economic behavior. For instance, we find out that wage affects the level of optimism. In this case, by increasing the salary a little bit, entrepreneurs will be able to increase/decrease the level of managers' optimism, this way influencing their future economic decisions.

Another, financial field where optimism matters is investment and trading activity. Deaves et al. (2004) investigate how overconfidence and gender affect trading activity. In fact, they test whether overconfidence affects trading activity and find a positive relationship. Then they tried to test whether gender has an influence on trading activity, they find out that there is no relationship. They conclude that the degree of overconfidence does not depend on gender. However, their finding might be due to a selection bias, as they tested only those individuals that do perform trading activity. And women choosing to work in this field could have some male traits and

gender differences would then indeed be not so significant. Moreover, previous study by Barber and Odean (2001) show different results in which women are less overconfident and perform less trading activity.

Given the fact that optimism can be gender-related, I include in my research gender dummy variable in order to check whether there are differences in optimism between males and females

When investigating investment activity, Cassar and Friedman (2007) showed that more optimistic/overconfident entrepreneurs are more likely to be involved in start-ups. They also find differences in preferences of sources of external funding in ventures. More specifically, they proved that more overconfident managers less use external funding in their ventures.

Another bunch of studies focuses on the optimism/overconfidence and moral hazard problem. Gervais et al. (2005), Fairchild (2007) and Rosa (2005) showed that overconfidence reduces the problem of moral hazard. Overconfident entrepreneurs believe that success to great excess depends on their actions. That is why they put more effort and spend more time at work (Puri et al 2005).

Ben-David et. al (2006) analyzed different aspects of CFO behavior. They found that overconfident managers perform more aggressive in general. In fact, they invest more, make more forecasts, pay less dividends and use more debt. Summarizing, we can claim that optimism/overconfidence does matter for economic behavior.

In fact, this kind of empirical work is done not only in economics but also in sociology, political science, medicine, etc. Any field that includes decision making is trying to solve this important and difficult puzzle. For instance, Fang and Silverman (2004) explore the

effect of optimistic beliefs about one's health on health investments during the lifetime. They find the positive relations between optimism and getting health insurance. People who are more optimistic about their future are likely to quit smoking, get insurance and in general take preventive measures. The results of this research are of great value for insurance companies. So, our study becomes even more valuable as its results will provide instrument to affect not only economic activity but such aspects as health state and life-style in general.

After analyzing all blocks of literature, one easily comes to the conclusion that there few if any studies that look for determinants of optimistic expectations. At the same time, as this review illustrates these beliefs play a huge role.

Chapter 3

DATA DESCRIPTION

In this research the Life in Transition Survey is used. This survey was conducted by the EBRD and the World Bank among 29 000 individuals across 29 countries in transition in 2006. These countries include 3 regions Central Eastern Europe and Baltic States, South Eastern Europe, Commonwealth of Independent States and Mongolia. The general purpose of this survey was to reveal whether population in transition country is satisfied at this stage with life in general, as well as with specific aspects such as political, economic and social situation. That is why it mostly includes qualitative data. The survey was conducted as face-to-face interviews and contains the following sections: Household roster, housing and expenses, attitudes and values, current activities, education and labor and life history (see Appendix A).

As the dependent variable proxying for the level of optimism I use the answer to the question: “Children who are born now will have a better life than my generation”. Possible answers include 5 variants: strongly disagree (1), disagree (2), neither agree nor disagree (3), agree (4) and strongly agree (5). In fact, there are answers “don’t know” and another possible variant is “not applicable”. These are not used in the research as they do not show the level of pessimism or optimism. Thus, the more is the assigned value, the more optimistic the person is.

The summarized information on answers to our particular question is provided in (Table1).

Table 1

| Children who are born now will have a better life than my generation | | | | | | | | |
|---|------------|----------------------|----------|----------|-------|-------------------|-------------------|---------------|
| No | Country | strongly disagree | disagree | neither | | strongly agree | not applicable | don't know |
| | | | | disagree | agree | | | |
| 1 | Albania | 2.3 | 2 | 5.9 | 43.2 | 45.1 | 0.1 | 1.4 |
| 2 | Belarus | 0.5 | 5.4 | 12.8 | 44.9 | 16.3 | 1.9 | 18.1 |
| 3 | Bosnia | 15.6 | 21.4 | 21.2 | 25.0 | 7.8 | 0.7 | 8.2 |
| 4 | Bulgaria | 7.9 | 19.8 | 21.4 | 26.3 | 11.7 | 0.4 | 12.5 |
| 5 | Croatia | 11.4 | 15.5 | 19.4 | 31.4 | 16.4 | 0.9 | 5.0 |
| 6 | Czech Rep | 5.3 | 18.6 | 22.2 | 30.4 | 15.2 | 1.1 | 7.2 |
| 7 | Fyrom | 16.6 | 20.7 | 19.8 | 19.3 | 9.7 | 0.6 | 13.3 |
| 8 | Hungary | 18.1 | 25.5 | 18.3 | 19.5 | 5.5 | 3.7 | 9.4 |
| 9 | Moldova | 6.9 | 18.3 | 23.2 | 27.2 | 5.0 | 0.5 | 18.9 |
| 10 | Montenegro | 7.4 | 13.1 | 16.4 | 33.2 | 10.0 | 2.3 | 17.5 |
| 11 | Poland | 6.5 | 15.2 | 22.1 | 34.3 | 13.0 | 0.3 | 8.6 |
| 12 | Romania | 8.3 | 14.9 | 24.4 | 32.4 | 11.4 | 0.6 | 8.0 |
| 13 | Serbia | 15.8 | 21.3 | 21.4 | 24.4 | 6.6 | 0.7 | 9.6 |
| 14 | Slovakia | 3.9 | 11.9 | 21.4 | 39.4 | 13.7 | 0.3 | 9.5 |
| 15 | Slovenia | 10.5 | 28.9 | 18.5 | 19.3 | 10.0 | 1.4 | 11.4 |
| 16 | Turkey | 14.0 | 14.7 | 14.0 | 26.7 | 25.3 | 0.8 | 4.5 |
| 17 | Ukraine | 8.1 | 17.9 | 18.3 | 31.8 | 7.8 | 0.6 | 15.5 |
| 18 | Armenia | 10.3 | 19.4 | 16.6 | 30.9 | 8.7 | 1.4 | 12.7 |
| 19 | Azerbaijan | 2.9 | 16.6 | 20.9 | 30.0 | 7.9 | 0.4 | 21.3 |
| 20 | Estonia | 0.6 | 7.8 | 16.6 | 46.1 | 21.4 | 0.6 | 6.9 |
| 21 | Georgia | 3.1 | 9.3 | 14.1 | 40.4 | 17.7 | 1.8 | 13.6 |
| 22 | Kazakhstan | 1.2 | 7.3 | 13.9 | 42.1 | 18.6 | 0.6 | 16.3 |
| 23 | Kyrgyzstan | 2.8 | 12.6 | 9.1 | 42.8 | 11.1 | 2.2 | 19.4 |
| 24 | Latvia | 0.7 | 10.0 | 14.9 | 45.1 | 22.7 | 0.3 | 6.3 |
| 25 | Lithuania | 1.6 | 8.1 | 12.4 | 42.6 | 32.3 | 1.2 | 1.8 |
| 26 | Mongolia | 2.3 | 8.4 | 12.9 | 34.2 | 25.1 | 4.8 | 12.3 |
| 27 | Russia | 6.3 | 13.7 | 15.9 | 26.4 | 16.8 | 0.9 | 20.1 |
| 28 | Tajikistan | 1.4 | 7.3 | 13.5 | 31.5 | 24.6 | 4.4 | 17.3 |
| 29 | Uzbekistan | 1.8 | 9.5 | 13.2 | 43.7 | 23.0 | 2.5 | 6.3 |
| | Total | 6.7 | 14.3 | 17.1 | 33.3 | 15.9 | 1.3 | 11.5 |

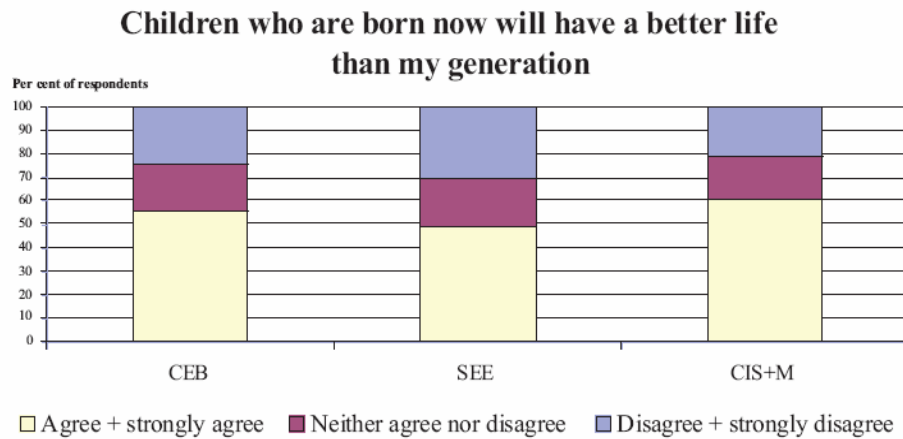
Source: author's calculations

Totally, 49,2 % of respondents can be named optimistic persons. This comes from summation of answers “strongly agree” and “agree”. About 21% is convinced that children born now will not have a better life than their generation. These results do not contradict to studies that prove that individuals are in general optimistic, as we can

see that the more respondents believe in better future than those who do not believe. However we cannot claim whether respondents are overoptimistic or not, because the outcome is not known. It can be argued that optimism occurs only in case when the outcome of any event depends on individuals' actions. However, Muren (2004) demonstrated in his experimental work that individuals are likely to overestimate even the probability of event that they cannot influence. So, the preliminary data inspection is consistent with previous empirical and experimental studies.

At the same time we can see a large variation in degree of optimism between given countries. In general, the highest level of positive answers is observed in the Commonwealth of Independent States countries (CIS) and Mongolia (see Figure 1). While the lowest one is in South-Eastern Europe (SEE) countries.

Figure 1



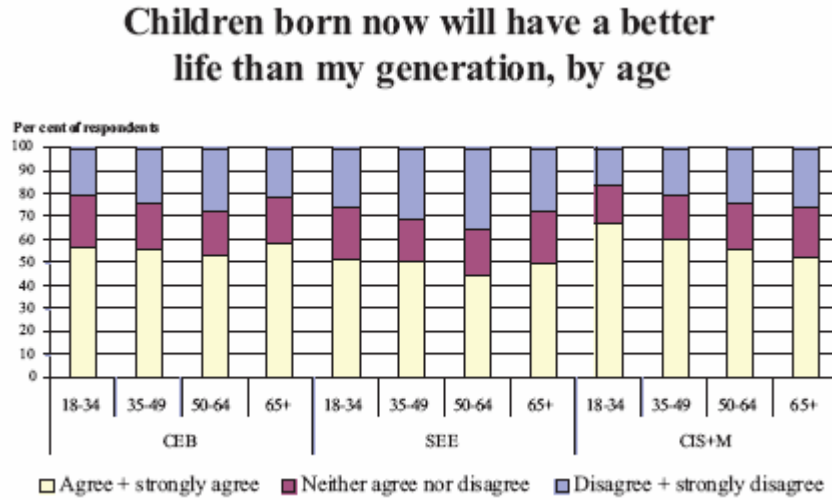
Source: the EBRD report on the LITS

The highest degree of optimism we can observe in Albania, where about 88% of respondents believe in future better life. And the

highest level of distrust in future is in Hungary, where the number of respondents who are sure that their generation had a better life reaches about 44%. After Albania, Baltic States come. The degree of optimism in Latvia, Lithuania and Estonia is around 70%. We can also observe that population in Middle East, Central Asia and South Caucasus countries is likely to be more optimistic. The percentage of positive answers in Kazakhstan, Uzbekistan, Tajikistan, Georgia, Turkey, Kyrgyzstan and Mongolia varies from 52% up to 67%. At the same time a high level is common to Belarus. The less optimistic people are likely to be in Slovenia, Serbia, Bosnia, Armenia, Bulgaria and Croatia. These differences can be explained from cultural, ethnical and historical points of view, things that are constant over time. That is why country-dummy variables are included into regression to control for these country-specific effects. Another possible reason can be the fact that some respondents have children, while others not. This fact can be taken into consideration by running two separate regressions for these two categories. In fact, it was already proved that parents' level of happiness is to the great extent dependent on their children's happiness (Schwarze et al. 2005).

Another interesting fact is that the level of optimism seems to be higher among younger respondents (see Figure 2).

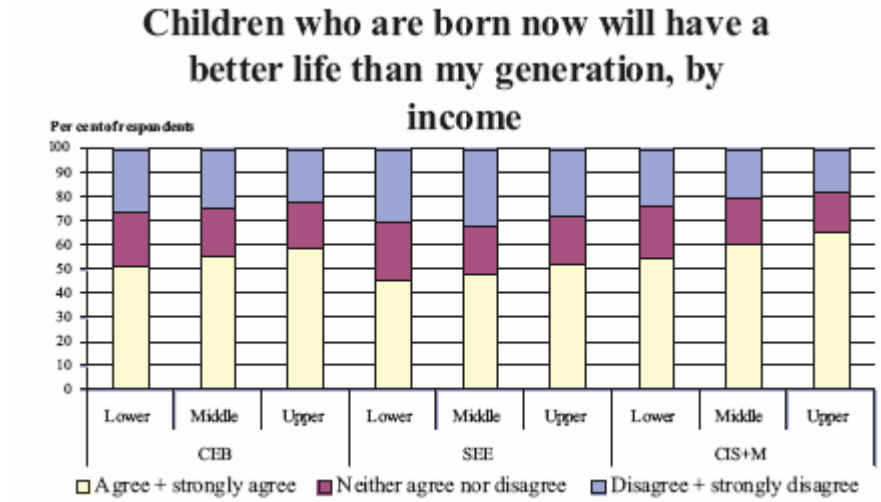
Figure 2



Source: the EBRD report on the LITS

At the same time it begins growing again after respondents reach the age of 65. This trend is common for all three regions. This fact gives the ground to make the hypothesis that there are possible differences in level of optimism between young and older population. That is why the age variable should be included into regression. In fact we include both age and age squared in order to capture this U-shaped dependence.

Figure 3



Source: the EBRD report on the LITS

The other trend that is common to all three regions is worth mentioning. It turns to be that those with higher income are likely to be more optimistic than individuals with lower one. However, it is not obvious at this stage, whether income positively affects the level of optimism or vice versa.

Chapter 4

METHODOLOGY

The most common practice when dealing with categorical variable as the dependent one is to use Ordered Probit model. This model is especially popular in life-satisfaction studies that also have self-perception categorical dependent variables.

So, to find out the determinants of optimism the Ordered Probit is used as a basic model:

$$OP_i = \beta' X_i + u_i$$

Where i stands for identifying individual (total 29 000), u_i is an error term that is assumed to be normally distributed. OP_i is the latent dependent category variable ranged from 1 to 5 and reflects the optimism of person i . X_i is a vector of explicative variables for individual i . In fact, the latent variable takes its values according to the following scheme:

$$OP_i = \begin{cases} 1 & \text{if } OP_i < \alpha_0 \\ 2 & \text{if } \alpha_0 < OP_i < \alpha_1 \\ 3 & \text{if } \alpha_1 < OP_i < \alpha_2 , \\ 4 & \text{if } \alpha_2 < OP_i < \alpha_3 \\ 5 & \text{if } OP_i > \alpha_3 \end{cases}$$

where α_i is some unknown constant. Then we can write the

conditional probabilities as:

$$\begin{aligned} P(OP_i = 1) &= P(OP_i < \alpha_0) = \Phi(\alpha_0 - \beta' X_i) \\ P(OP_i = 2) &= P(\alpha_0 < OP_i < \alpha_1) = P(OP_i < \alpha_1) - P(\alpha_0 < OP_i) \\ P(OP_i = 3) &= P(\alpha_1 < OP_i < \alpha_2) = P(\alpha_2 < OP_i) - P(\alpha_1 < OP_i) \\ P(OP_i = 4) &= P(\alpha_2 < OP_i < \alpha_3) = P(\alpha_3 < OP_i) - P(\alpha_2 < OP_i) \\ P(OP_i = 5) &= P(OP_i > \alpha_3) = 1 - P(OP_i < \alpha_3) \end{aligned}$$

$$\begin{aligned} P(OP_i = 1) &= \Phi(\alpha_0 - \beta' X_i) \\ P(OP_i = 2) &= \Phi(\alpha_1 - \beta' X_i) - \Phi(\alpha_0 - \beta' X_i) \\ P(OP_i = 3) &= \Phi(\alpha_2 - \beta' X_i) - \Phi(\alpha_1 - \beta' X_i) \\ P(OP_i = 4) &= \Phi(\alpha_3 - \beta' X_i) - \Phi(\alpha_2 - \beta' X_i) \\ P(OP_i = 5) &= P(OP_i > \alpha_3) = 1 - \Phi(\alpha_3 - \beta' X_i) \end{aligned}$$

where $\Phi(\circ)$ is cumulative standard normal function.

$$X_i = [W_i, HC_i, TR_i, A_i, S_i, CD_i, I_i]$$

The set of dependent variables is represented by vectors sorted by different categories: This will include several categories of both quantitative and qualitative variables³.

Namely, I want to explore the influence of material well-being that will cover: possession of different consumer goods (dummies W_i). It was previously proved that entrepreneurs are in general more optimistic (Arabsheibani et al., 2000). They are also more likely to get more income. When people start getting higher income they can become more optimistic about children's future, because they believe that they will be able to provide their kids everything for them to succeed.

Following the procedure proposed by Denisova, et alii (2007), I am also going to include Human Capital (HC_i) determinants: age, education degree and poor health. They should be included because there might be a difference between expectations of the youth and those who are older. For instance, savings theory indicates that those retired and young individuals' savings differ. To the great extent this happens because of life-cycle, i.e. young and old people in general save less. The major part of individual capital accumulation falls on middle-age period. However it also was proved that the level of savings depends on optimism (Brown and Taylor (2006). More optimistic people save less. From here we can conclude that optimism and age affect the level of savings in the same way. We can make an assumption that optimism varies with age this way affecting savings. If optimism does vary with age we should for sure include this into the model. It is expected that there might be difference between more educated and less educated people. To prove this we can refer to Barbosa and

³ Table 1 and 2 (Appendix A) provide general description and descriptive statistics for all the variables

Randall (2004), who showed that highly educated parents have higher expectations about their children's education. In this case, parents who got more education, expect from their children the same behavior and this way may be more sure about their better future. On the other hand, Arabsheibani et al. (2000) showed that the level of education negatively affects the level of optimism.

The other set of variables will include dummies that reflect people's attitude towards ideology: whether respondent prefers market or planned economy (I_i). This can reflect whether individuals are satisfied with present things. Radcliff (2001) showed that the level of happiness do depends on political factors. After comparing the responses on this questions we will be able to answer the question whether the person is satisfied with the changes in politics that taken place during the transition period. Variable A_i will stand for attitude towards government and society: degree of trust in society and public institutions, attitude towards level of corruption. The logic behind inclusion of such kind of factors is the following: person can be in general pessimistic and distrustful. This forms her general attitude towards life. On the other hand, beliefs into a bad future can be explained by the fact that individuals find the whole political and social system weak. They also do not believe that in such society and under such political system their children will be happy. While recognizing this fact, they become less optimistic in general. If it turns to be true the study will provide incentives to government to make changes in system in order to increase the level of optimism in society. On the other hand, it might happen that people that consider the present situation to be bad expect that it should be followed by positive changes. If viewing

the problem from this point, the individuals who are not satisfied with present things are likely to be more optimistic about the future.

I am also going to include country dummies (CD_i) and transition-related factors (TR_i). This contains information whether the person worked in private or government sector during transition periods, reasons of leaving the job-place, whether she ever been a member of communist party. All these variables are important, because they reflect the life history. The present world-outlook depends on many things and experience plays often the main role among them. Indeed, the fact that one is satisfied with her life now depends on what kind of life she had before. As there is no such a variable that reflects life experience in general, transition-related factors will play the role of it.

Finally, S_i is a set of variables will cover individual specific controls (gender, location, size of household, marriage status and number of children).

Chapter 5

EMPIRICAL RESULTS

To determine the determinants of optimism we run 4 Ordered Probit model for 4 main samples of respondents:

- the first one includes all respondents who do not have children
- the second regression includes all respondents with children
- the third specification includes only individuals who are the heads of households and have no children
- and the last one includes head of households with children

This division is made in order to capture the difference between these groups. People with children will most likely think about their children when answering the optimism question. Moreover, data set that is related to heads of households is richer and allows us to control for more individual-specific factors, such as marriage status and number of children in household.

The results of our regression allow us to:

1. Compare our results with other authors' conclusions
2. Test the hypothesis that followed from the discussion of the descriptive data.
3. Find the most important determinants of optimism and compare their marginal effects on dependent variable
4. Compare the results for different groups of respondents

Rather than presenting one big table with results, we focus on subsets of results corresponding to the above 4 categories

1. Matching with previous studies

As it was mentioned there are few studies on the corresponding subject. However, we got some hypothesis to test from those already existing works.

Arabsheibani et al (2000) came to the conclusion that self-employed individuals are more optimistic than those working for employer. The same results were obtained by Barros and Silveira (2007). However, we don not find the evidence of this in our research. Coefficients of dummy variable that indicate, whether a respondent is self-employed or not, turn out to be insignificant for all four specifications. This may be caused by the fact that Arabsheibani et al (2000) and Barros and Silveira (2007) studied more specific type of optimism, i.e. financial optimism. Our research is concentrated on more general issue. That is why the results are different.

| | All without children | All with children | Head of household without children | Head of household with children |
|--|-------------------------------------|------------------------------|---|--|
| Manager position | -0.0118 | 0.0168 | -0.0143 | 0.0603 |
| Self-employment | 0.0839 | 0.0478 | 0.0704 | 0.0985 |
| Number of years, worked for wage 1989-2006 (for an employer) | 0.00228 | -0.0028 | 0.00491* | -0.00393 |
| Number of years, worked as self-employed 1989-2006 | -0.00445 | 0.000412 | -0.00157 | -0.000207 |
| Gender | 0.0381** | 0.0740*** | 0.0718** | 0.0781 |

The other issue Arabsheibani et al (2000) pay attention to is the dependence of optimism on gender. Here, we get the same results. Males turn out to be more optimistic. Marginal effect for outcome that

corresponds to outcome “agree” is 0.008 higher for males without children than for women and 0.01 higher for males with children (see Appendix B, Table 2-3). This way we disprove the conclusions of Deaves et al. (2004), who claimed that overconfidence does not depend on gender. This may be explained through the slight difference between optimism and overconfidence.

Battigalli and Dufwenberg (2005) in their theoretical work showed how an outcome of some decision making process differs when social factors are introduced. In our study we paid much attention to social factors such as trust in society and government. All these variables are significant and do take part in formation of optimism. If looking at the section that reflects attitudes towards government, society and financial institution (Appendix B, Table 1), we can see that these are the most significant factors.

2. Testing the hypothesis that follow from the data description

The three main hypothesis that arise from the data description are

- the level of optimism varies with age and takes the U-shape
- there is the difference in the level of optimism over the regions
- the level of optimism changes with the level of income

We did get U-shaped dependence of optimism on age. It decreases until people get 50 years old and starts increasing again when individuals get older.

| | All without children | All with children | Head of household without children | Head of household with children |
|--------------------------------------|-------------------------------------|------------------------------|---|--|
| Age | -0.0115*** | -0.00949 | -0.0105* | -0.00998 |
| Age ² /100 | 0.0120*** | 0.0107 | 0.0111** | 0.0115 |
| SEE vs CEB | 1.190*** | 1.743*** | 1.421*** | 1.635*** |
| CIS vs CEB | 0.144* | 1.506*** | 0.300** | 0.743*** |
| Income/ expenditures on education | -0.000178* | 0.0000153 | -0.000211* | 0.00005 |
| Income*region (SEE vs CEB) | 0.0000917 | -0.0000371 | 0.0000712 | -0.000108 |
| Income*region (CIS vs CEB) | 0.000262 | -0.0000259 | 0.000246 | -0.000088 |

If we look at coefficients for dummy variables for regions, where Central Eastern Europe and Baltic States is the base category, we also can see that people from South Eastern Europe and Commonwealth of Independent States are in general more optimistic than individuals from Central Eastern Europe and Baltic States.

To reflect the level of income we used expenditures in general for individuals who have no children and expenditures on education for respondents with kids. We do not include them both in order to avoid the multicollinearity problem. However, there is no evidence that optimism depends on level of income, even when it is interacted with region-dummy to capture the difference in well-being between the regions. This suggests that not material-being determines the level of optimism. At the same time results can be insignificant because of endogeneity problem. It may be that optimism itself affects the level of income. The intuition behind this is that optimists can look for a job more actively and finally find better positions with higher wage. The possible solution to this problem might be instrumental variables. Unfortunately, our data set does not allow us to find instruments.

However, this might be the basis for further research. Another problem with using income-related variables is that there is still low participation of individuals with high incomes in surveys for transition countries. This does not provide enough variation in income to make strong conclusions about income impact on optimism level.

3. Most important determinants of optimism

To answer the question which factors in fact influence optimism we analyze Table 1 (Appendix B) that provides the results of Ordered Probit Regression. To make things easier, let's do this by sections

Human Capital

Only employment status that reflect whether the respondent was employed during last 12 months turns out to be significant.

| | All without children | All with children | Head of household without children | Head of household with children |
|------------------|-------------------------------------|------------------------------|---|--|
| Employment | -0.0620** | -0.014 | -0.0773** | -0.000712 |
| Manager position | -0.0118 | 0.0168 | -0.0143 | 0.0603 |
| Self-employment | 0.0839 | 0.0478 | 0.0704 | 0.0985 |

However, it is significant for individuals who have no children and has an unexpected sign. Those who were employed are less optimistic than those who were not. The intuition behind this can be the following: respondents who were unemployed consider that they are not able to find work because knowledge and skills acquired before are not applicable under current changed circumstances. However, they think that children born now will get modern education and find a good job.

That is why unemployed individuals are more optimistic about children's future.

Material well-being

Very few factors that were included into the regression that reflect material well-being are significant. Analyzing Material well-being section of Table 1 (Appendix B) we see that only holding of mobile phone and dummy for type of dwelling are significant.

| | All without children | All with children | Head of household without children | Head of household with children |
|---|-------------------------------------|------------------------------|---|--|
| Mobile home vs detached house | -0.134 | -0.405*** | -0.246 | -0.652*** |
| Income/ expenditures on education | -0.000178* | 0.0000153 | -0.000211* | 0.00005 |
| Holding of mobile phone | 0.0624*** | 0.113*** | 0.0381 | 0.158*** |
| Holding of computer | -0.0573* | -0.018 | -0.0613 | -0.00182 |
| Change in self-perception of wealth between 1989 and 2006 | 0.00176 | 0.0102* | -0.00137 | 0.00686 |

We consider that people who have mobile phones enjoy modern life more than those who do not. Often, “old-school” individuals refuse having mobile phone this way expressing protest to novelties of modern life. That is why those who have it consider life to be better and that is why expect children to have good future.

It also makes sense that individuals who live in mobile home are less optimistic than those who have detached house. There might be two explanations. Respondents who live in mobile home are poorer and that is why they are less optimistic about the future. This can make sense especially taking into account that this factor is significant only

for individuals with children. However, we get general results that optimism does not depend on income level. Taking into account that there are only 230 respondents in whole data set who live in mobile homes we can also assume that the sample of these individuals is not representative. On the other hand, it may be an issue of endogeneity as well.

Speaking about other insignificant factors, they include level of income and expenditures on education, holding of car, secondary residency, bank account and other property. So, the general conclusion is that material-well being is unlikely to be determinant of optimistic expectations.

Transition related work experience

This section is also not rich with significant factors.

| | All without children | All with children | Head of household without children | Head of household with children |
|--|-----------------------------|--------------------------|---|--|
| Number of years, worked for wage 1989-2006 (for an employer) | 0.00228 | -0.0028 | 0.00491* | -0.00393 |
| Number of years, worked as self-employed 1989-2006 | -0.00445 | 0.000412 | -0.00157 | -0.000207 |
| Moved from state-owned companies to self-employment | -0.0619 | 0.0447 | -0.0763 | -0.0561 |
| Years cut down on basic food consumption | 0.00344 | 0.00116 | 0.000817 | 0.000496 |

This suggests that factors related to one's past work experience have little influence on future beliefs.

Ideology

The section that reflects respondents' ideological views shows more significant results.

| | All without children | All with children | Head of household without children | Head of household with children |
|---------------------------------------|-------------------------------------|------------------------------|---|--|
| Planned vs market economy | -0.0472** | -0.00296 | 0.00868 | -0.024 |
| Indifference vs market economy | -0.0636** | -0.0383 | -0.0625* | 0.0285 |
| Authoritarian vs democratic regime | -0.111*** | -0.119*** | -0.109*** | -0.110** |
| Indifference vs democratic regime | -0.0932*** | -0.0417 | -0.0631* | -0.112** |

From here we can draw conclusions that respondents who prefer a planned economy over a market economy and an authoritarian regime over democratic one are less optimistic. It might happen because of the fact that still many people who lived the biggest part of their life before the transition experience a kind of “nostalgia” for that time. When they were young they were sure that after graduation they will get job-place according to government programs. Now they experience a lot of uncertainty and know that the youth will not get anything just by governments’ directives. That is why they consider that their life was better and children born now will not have the same opportunities. Of course we control for age as well and this explanation can seem weak. However out of data set about 80% are respondents older than 30, this fact makes explanation to be quite strong. At this point we can conclude that in spite of the fact that past work experience does not matter, past itself matters. Confidence that people used to have and lost is explanation for many of our results.

Attitude towards government society and financial institutions

The section that reflects people’s attitudes towards society, government and financial institutions demonstrates one of the largest number of significant coefficients with expected signs.

| | All without children | All with children | Head of household without children | Head of household with children |
|---------------------------|-------------------------------------|------------------------------|---|--|
| Trust people 8 | 0.0336 | -0.517* | -0.12 | -0.945* |
| Trust people 9 | -0.00661 | -0.576* | -0.194 | -1.059* |
| Trust the presidency 2 | -0.00407 | 0.0816 | -0.0612 | 0.178** |
| Trust the presidency 3 | 0.0355 | 0.139*** | 0.0111 | 0.191*** |
| Trust the presidency 4 | 0.114*** | 0.155*** | 0.0748 | 0.225*** |
| Trust the presidency 5 | 0.0496 | -0.144* | 0.122 | -0.0692 |
| Trust the government 2 | 0.0766** | 0.0297 | 0.0905** | 0.00831 |
| Trust the government 3 | 0.103*** | 0.0424 | 0.118*** | 0.0786 |
| Trust the government 4 | 0.0949*** | 0.0121 | 0.124*** | 0.0513 |
| Trust the government 5 | 0.150*** | 0.0731 | 0.136** | 0.0824 |
| Trust banks 2 | 0.132*** | 0.145** | 0.152*** | 0.0737 |
| Trust banks 3 | 0.0849** | 0.107** | 0.0768 | 0.022 |
| Trust banks 4 | 0.0785** | 0.169*** | 0.110** | 0.082 |
| Trust banks 5 | 0.121*** | 0.221*** | 0.096 | 0.165** |
| Trust foreign investors 2 | 0.0348 | 0.130** | 0.0153 | 0.165** |
| Trust foreign investors 3 | 0.0675** | 0.155*** | 0.0798* | 0.186*** |
| Trust foreign investors 4 | 0.146*** | 0.165*** | 0.167*** | 0.235*** |
| Trust foreign investors 5 | 0.145*** | 0.263*** | 0.180*** | 0.351*** |

For all trust-related factors the omitted variable is “complete distrust”. The higher is the level of trust towards government, presidency, financial institutions and society, the higher is the level of optimism. Individuals who trust government believe that it will be able to create favorable conditions for getting better life in future. Trust in financial institutions also has positive effect. It is known that developed and stable system guarantees economic development. The same can be told about trust to foreign investors. People who trust them probably

believe that presence of foreign investors in a country will make the process of development faster and this way will provide better basis for success in children's life.

Variable "trust people" reflects the change of trust to people over time (1989-2006). The negative sign of coefficients here indicates that those who completely trusted people in 1989 and now do not trust them are less optimistic than those who experienced complete distrust before and changed their attitude to complete trust. So, the results are the same as for other factors in this block: the higher is the level of trust the more optimistic a person is. It is worth mentioning that, in fact, it is difficult to say whether trust-related factors affect the level of optimism or vice versa. Indeed, it may be that people trust society because they are just optimistic in general. This can create the endogeneity problem as well. That can be solved only with the help of instruments. However, if we go back to our proxy for optimism we get more convinced in our assumption that trust creates optimism. It comes from the fact that when answering on question, whether children born now will have better future, respondents are likely to estimate it their heads whether the system would be able to provide them better future. This way, if they do trust the system, the probability of positive answer increases.

Factors that reflect satisfaction

The section that shows people's level of satisfaction with economic and politic situation, as well as life satisfaction in general (Appendix B, Table 1) suggests that more satisfied individuals are more optimistic. Also, those who consider that today is less corruption than before have higher level of optimism. The explanation of the results is quite obvious. People who are satisfied with present things believe that current circumstances can create favorable conditions for children's

future. It may be also the true that these respondents are more optimistic in general.

Not very expected results were got for variable that reflects whether the gap between rich and poor should be reduced. Respondents who agree with this statement are more optimistic that respondents who disagree. It may be that people who consider that the gap should be reduced do not believe that they will have time to benefit from this reduction. However they do believe that children born now will enjoy the consequences of this.

Individual Controls

Among individual controls the most significant are age, gender and religion factor. Males turn out to be more optimistic, as well as Jewish and Buddhists in comparison with agnostics.

Marginal effects

Analyzing Tables 2-5 (Appendix B) that present marginal effects for all four specifications we came to the conclusions obtained before. The most effect have attitudes and trust factors. We consider effect to be relatively large if it is more or equal to 0.05 in absolute value. Here are variables that have such an effect on the level of optimism on example of regressions that cover all individuals:

| Marginal effects | All without children | | All with children | |
|--|-----------------------------|--------------|--------------------------|--------------|
| | disagree | agree | disagree | agree |
| Improvised vs detached house | 0.0110821 | | -0.0880716 | |
| Satisfaction with economic situation 2(base-strongly disagree) | -0.0633855 | 0.0182464 | 0.0182464 | |
| Satisfaction with economic situation 3 | -0.0859384 | 0.0387995 | 0.0387995 | |
| Satisfaction with economic situation 4 | -0.0528567 | 0.0576943 | | |
| Satisfaction with economic situation 5 | -0.0305423 | 0.0634606 | 0.0366036 | |
| Life satisfaction wrt to parents 2(base-strongly disagree) | -0.0802429 | 0.0331508 | | |
| Life satisfaction wrt to parents 3 | -0.1003597 | 0.0503037 | | |
| Life satisfaction wrt to parents 4 | -0.0613342 | 0.0749065 | | |
| Life satisfaction wrt to parents 5 | -0.0564937 | 0.0734383 | | |
| Life satisfaction 2(base-strongly disagree) | -0.15098 | 0.0646555 | | |
| Life satisfaction 3 | -0.1536286 | 0.0848206 | -0.1052814 | 0.053699 |
| Life satisfaction 4 | -0.0997541 | 0.1264488 | -0.1523825 | 0.0957286 |
| Life satisfaction 5 | -0.0868019 | 0.0319544 | -0.1597385 | -0.100575 |
| The gap between rich and poor should be reduced 2 | -0.070954 | 0.0450303 | | |
| The gap between rich and poor should be reduced 3 | -0.0939293 | 0.0507718 | | |
| The gap between rich and poor should be reduced 4 | -0.086597 | 0.0676862 | | |
| The gap between rich and poor should be reduces 5 | -0.0806846 | 0.0920996 | | |
| Medium health vs very good | 0.1729312 | -0.0133173 | | |
| Very bad health vs very good | 0.1513081 | | | |
| Trust people 7 | 0.1129098 | | | |
| Trust people 8 | 0.1200243 | | | |
| Trust people 9 | 0.1336029 | -0.147103 | | |
| Trust people 5 | 0.1013089 | -0.0859032 | | |

As we can see, there are almost no high effects of material-well being and individual controls on level of optimism. This implies that satisfaction and attitudes factors are not only the most significant, but also have the highest marginal effect on formation of optimism. What is important is that health also plays role. Being in bad health increases the probability of becoming less optimistic.

The interesting fact is that being Jewish increases optimism also by a relatively high value.

But the highest marginal effect coefficients belong to country-dummies. For all samples they are more than 0.1. This implies that optimism is also something culture-related and this relationship is the strong one. So, we can manipulate the level of optimism only slightly.

5. Comparing the results for different groups of respondents

General conclusions for all groups of respondents are the same. However, there are little differences. Some of results are significant only for individuals without children. Here are reported the results in which the significance of factors for individuals with children and without children differ:

| | All without children | All with children | Head of household without children | Head of household with children |
|---|-------------------------------------|------------------------------|---|--|
| Employment | -0.0620** | -0.014 | -0.0773** | -0.000712 |
| Flat vs detached house | -0.0608*** | -0.0147 | -0.0717** | 0.0355 |
| Mobile home vs detached house | -0.134 | -0.405*** | -0.246 | -0.652*** |
| Income/ expenditures on education | -0.000178* | 0.0000153 | -0.000211* | 0.00005 |
| Indifference vs democratic | -0.0932*** | -0.0417 | -0.0631* | -0.112** |
| Trust people 8 | 0.0336 | -0.517* | -0.12 | -0.945* |
| Trust people 8 | 0.0336 | -0.517* | -0.12 | -0.945* |
| Trust people 9 | -0.00661 | -0.576* | -0.194 | -1.059* |
| Trust the presidency 3 | 0.0355 | 0.139*** | 0.0111 | 0.191*** |
| The gap between rich and poor should be reduced 2 | 0.280*** | 0.135 | 0.292*** | 0.0215 |
| Today is less corruption 4 | 0.157*** | 0.071 | 0.204*** | -0.00144 |
| Age | -0.0115*** | -0.00949 | -0.0105* | -0.00998 |
| Age ² /100 | 0.0120*** | 0.0107 | 0.0111** | 0.0115 |
| Metropolitan vs urban | 0.0462* | -0.0169 | 0.0639* | -0.0306 |

As it can be seen from the table there are more significant coefficients for people without children. This proves our initial hypothesis. What is interesting is that in spite of that fact that according to our results all individuals in general form their optimistic expectations on the basis of self-perception factors, those rare material well-being factors that influence optimistic expectations are significant only for individuals without children. This implies that respondents who have children do not consider that material well-being is something that determines children's good future.

There is no any specific difference in marginal effects for individuals with and without children (Table 2-5, Appendix B). This means that the difference is expressed only in factors' importance, but not in size of the effect.

The division on respondents in general and respondents who are heads of households just allowed us to include more explicative variables. For instance, we included marriage status that turned to be significant for heads of households with children and has negative effect on level of optimism. In general results for two sub-samples do not differ (Appendix B, Table 1). From here we can conclude that factors that were omitted are not so much important.

Testing for Parallel Regression Assumption

The general explanation for the Probit Model is

$$P(y_i < \alpha) = \Phi(\gamma_i - \beta' X_i)$$

For our case we have 4 binary regressions. Parallel Regression Assumption implies that in each binary regression we have the same set of coefficients β . This means that Ordered Probit with cut-off point 1 should give the same results as Ordered Probit with cut-off point 2 or

Ordered Probit with cut-off point 3 gives the same results as with cut-off with point 4. We test this assumption by running the same model but with approximate likelihood-ratio test. The degrees of freedom used are $(p)(K-2)$, where p stands for number of regressors.

In all four cases we got very low p -values which indicate that the parallel regression assumption is not held. Significant p -values reject the null-hypothesis that coefficients are equal across categories. In this case we can use another model, in particular Multinomial Logit. After running the same regressions for logit we obtained fairly similar results. However, we prefer to stick to probit because of several reasons:

Approximate likelihood-ratio test is not the most reliable test. This can be proved by the fact that even when it reports insignificant results it does not imply that we have the right model.

1. Multinomial logit model has Independence of irrelevant alternative assumption that means that if we add one more category than the choice between categories does not change. That is unlikely to be the case for our model.

2. It is the most common practice to use Ordered Probit model when working with such kind of category variables (look Life satisfaction studies)

3. It is also preferable to use Oprobit model because it can be easier interpreted in comparison with Multinomial logit.

Robustness check

To check for robustness we transform our 5 categories into 2 and run simple logit and probit models. We drop variable “neither agree nor disagree” and the remaining we combine into “agree” and “disagree”. This way we get binary-response model and can use logit or probit model for estimation.

Logit model assumes the following the cumulative distribution function

(cdf):

$$F(y) = \frac{\exp(y)}{1 + \exp(y)},$$

while the cumulative distribution function of probit is normal

distribution cdf: $F(y) = \frac{1}{\sqrt{2\pi}} e^{-\frac{1}{2}(y)^2}$

So, these two models do differ at tails, however their results are quite similar. This was proved by our results, that is why we report the results only for logit model (Appendix B, Table 6). Analyzing the table 6 we see that general results that we obtain for logit are the same as we obtained before for Ordered Probit model. We get again that subjective self-perception factors are the most significant and have the largest effect on optimistic expectations, while material well-being factors are almost insignificant. So, our conclusions are fairly robust.

Chapter 6

CONCLUSIONS

The main purpose of the research was to identify the determinants of optimistic expectations in transition countries and to highlight factors that have the greatest power in the formation of optimistic expectations. The economic motivation of the research was constructed on the basis of previous studies that showed that optimistic expectations do influence economic behavior both on individual and firm's level. In this study we assumed that optimistic expectations are only partly attributed to heritability and to great extend are determined by environmental factors. Another assumption was that not only current circumstances play role but also factors related to the past.

Using a survey that includes responses of 29 000 individuals and covers three big regions we proxy for the optimistic expectations by a categorical variable that reflects the answer on the question whether children born now will have a better future than the current generation. We conclude that about 49% of respondents have optimistic expectations and 21% are pessimistic. However, 29% or neither agree nor disagree or do not know whether children born now will have better future.

We then use explicative variables that reflect individuals' material well-being as well as subjective perception of current life-circumstances to identify factors that influence optimistic expectations. Our main results show that subjective factors affect optimistic expectations the most,

both in terms of significance and size. Variables that reflect trust to society, government and financial institutions, as well as factors that show the level of satisfaction with economic and politic situation turn out to be the most significant and have positive effect on optimistic expectations. In contrast, factors that reflect respondents' wealth are insignificant. The results of the study show also high significance of ideology-related factors. People who prefer market economy over planned economy and people who prefer democracy versus authoritarian regime have more optimistic expectations about the future.

One shortcoming of this research is that we have not been able to tackle the endogeneity problem, because our dataset does not provide a good instrument that would allow us to disentangle correlation and causality. At the same time, this provides incentives for further research to find instrumental variables that will help fighting the problem. Another basis for further research might be to use different measures for the level of optimistic expectations.

Policy implications that follow from our results suggest that only by influencing individuals' trust to government, financial institutions and society in general governments will be able to affect the level of optimistic expectations. This implies that only sound long-run politic and economic performance can increase people's trust and satisfaction that will lead to changes in optimistic expectations this way influencing economic public decisions. If it would be the case that optimistic expectations are determined by material well-being, it would be easier to influence the level of optimism just by one-time change in wages, for instance. However, it is much more difficult to change level of public

trust within a short period because it is usually based on conclusions that people make on a long-run basis. The question “how actually can government affect the level of public trust and satisfaction?” might be another good topic for further studies.

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APPENDIX A

Details of the Life in Transition Survey

The Life in Transition Survey was jointly conducted by EBRD and World Bank between August and October 2006. It covers 29 transition countries with 1000 households in each country. The main purpose of the survey was to gather information on how people evaluate current life-circumstances and transition-related facts. That is why it includes a lot of questions related to life-satisfaction, satisfaction with current political and economic situation, attitude towards governments, society and financial institutions. Respondents were asked to compare their present sentiments in comparison with those that they had back in 1989 in order to capture transition history.

The data set covers several sections that include information about household roster, size and structure of expenditures, living conditions, position of different goods. Then follows the section dedicated to ideology-related questions, satisfaction and attitudes. Finally, a big section is dedicated to transition history of household and includes questions regarding past work experience and important life events such as marriage and children birth.

Sampling

The survey was implemented on face-to-face basis. Firstly, 50 primary sampling units (PSU) were chosen in each country from census enumeration areas (CEA). Then on the random basis there were selected 20 units out of 50 PSU.

In each household the sections related to household roster and housing and expenses were answered by head of household. The remaining sections were answered by a member of household who achieved age of 18 and who was chosen at random (using last birthday survey rule).

EBRD plans to follow the opinion of respondents by repeating the procedure in future

Table 1

Descriptive Statistics

| Variable | Obs | Mean | Std. Dev. | Min | Max |
|--|-------|--------|-----------|------|-------|
| <i>Dependent variable</i> | | | | | |
| Optimism | 25254 | 3.43 | 1.18 | 1 | 5 |
| Human Capital | | | | | |
| Employment | 25260 | 0.49 | 0.50 | 0 | 1 |
| Manager position | 25260 | 0.08 | 0.27 | 0 | 1 |
| Self-employment status | 25259 | 0.09 | 0.29 | 0 | 1 |
| Material well-being | | | | | |
| Housing conditions | 25260 | 2.26 | 1.55 | 1 | 8 |
| Income | 24398 | 181.07 | 158.74 | 0 | 2200 |
| Expenditures on education | 24854 | 196.66 | 462.06 | 0 | 5289 |
| Holding of a car | 25256 | 0.41 | 0.49 | 0 | 1 |
| Holding of secondary residency | 25234 | 0.12 | 0.32 | 0 | 1 |
| Holding of a bank account | 25241 | 0.38 | 0.48 | 0 | 1 |
| Holding of a credit/debit card | 25238 | 0.32 | 0.47 | 0 | 1 |
| Holding of mobile phone | 25255 | 0.64 | 0.48 | 0 | 1 |
| Holding of computer | 25251 | 0.28 | 0.45 | 0 | 1 |
| Access to internet at home | 25243 | 0.17 | 0.38 | 0 | 1 |
| Change in self-perception of wealth between 1989 and 2006 | 25260 | -1.15 | 2.36 | -9 | 9 |
| Work experience during transition period | | | | | |
| Number of years, worked for wage 1989-2006 (for an employer) | 25260 | 6.94 | 6.91 | 0 | 18 |
| Number of years, worked as self-employed 1989-2006 | 25250 | 1.16 | 3.54 | 0 | 18 |
| Moved from state-owned companies to self-employment | 25260 | 0.04 | 0.19 | 0 | 1 |
| Years cut down on basic food consumption | 25260 | 1.81 | 4.05 | 0 | 18 |
| Ideology | | | | | |
| Market economy vs Planned economy | 25207 | 1.88 | 0.85 | 1 | 3 |
| Democracy vs Authoritarian | 25226 | 1.68 | 0.86 | 1 | 3 |
| Attitude towards government and society | | | | | |
| Trust people | 25260 | 0.89 | 1.42 | -4 | 4 |
| Trust presidency | 24456 | 3.28 | 1.50 | 1 | 6 |
| Trust government | 25255 | 2.84 | 1.49 | 1 | 6 |
| Trust banks and the financial system | 25249 | 3.35 | 1.43 | 1 | 6 |
| Trust foreign investors | 25242 | 3.33 | 1.62 | 1 | 6 |
| Satisfaction | | | | | |
| Economic satisfaction | 25258 | 3.10 | 1.63 | 1 | 7 |
| Political satisfaction | 25256 | 3.28 | 1.68 | 1 | 7 |
| Life satisfaction wrt to parents | 25247 | 3.46 | 1.35 | 1 | 7 |
| Life satisfaction | 25250 | 3.17 | 1.19 | 1 | 7 |
| Income gap | 25251 | 4.27 | 1.00 | 1 | 7 |
| Corruption | 25251 | 2.87 | 1.90 | 1 | 7 |
| Individual controls | | | | | |
| Gender | 25260 | 0.42 | 0.49 | 0 | 1 |
| age | 25259 | 46.72 | 17.57 | 18 | 97 |
| age ² /100 | 25259 | 24.92 | 17.48 | 3.24 | 94.09 |
| Religion | 25239 | 3.91 | 1.12 | 1 | 6 |
| Urban,metropolitan,rural area | 25260 | 1.85 | 0.74 | 1 | 3 |
| Health | 25257 | 2.71 | 1.00 | 1 | 5 |
| Member of ethnic minority | 25237 | 0.11 | 0.31 | 0 | 1 |
| Marriage | 25260 | 0.61 | 0.49 | 0 | 1 |
| Number of children | 17477 | 0.53 | 0.90 | 0 | 9 |
| Household size | 17477 | 3.18 | 1.68 | 1 | 12 |

Table 2
Variables' Description

| Variable | Description |
|--|---|
| <i>Dependent variable</i> | |
| Optimistic expectations | Five-category response on statement whether individuals agree that children born now will have better future than their generation. The maximum value assigned equals 5 and corresponds to "strongly agree" and the minimum value equals 1 and corresponds to "strongly disagree" |
| <i>Independent variables</i> | |
| Human Capital | |
| Employment (empl) | Dummy variable, that indicates whether respondent worked for income past 12 months (yes=1, no=0) |
| Manager position | Dummy variable, that indicates whether respondent has people under supervision at work, yes=1, no=0 |
| Self-employment | Dummy variable that indicates whether respondent works as self-employed, yes=0, no=1 |
| Material well-being | |
| Type of dwelling (Housing) | Dummy variable, that indicates whether respondent has detached house, semi-detached house, terrace house, apartment, dormitory, part commercial, mobile or improvised housing. Reported by head of household |
| Income | Approximated by expenditures on food, clothing, transport, communication and recreation per adult equivalent member (past 30 days) |
| Expenditures on education | USD spending on education (last 12 months) |
| Income*Region, Expenditures on education*Region | Interaction terms that captures the difference in development between regions |
| Holding of a car | Dummy variable, indicates whether respondent has a car (yes=1, no=0) |
| Holding of secondary residency | Dummy variable, indicates whether respondent has secondary residence (yes=1, no=0) |
| Holding of a bank account | Dummy variable, indicates whether respondent has a bank account (yes=1, no=0) |
| Holding of a credit/debit card | Dummy variable, indicates whether respondent has a credit/debit card (yes=1, no=0) |
| Holding of mobile phone | Dummy variable, indicates whether respondent has a mobile phone (yes=1, no=0) |
| Holding of computer | Dummy variable, indicates whether respondent has a computer (yes=1, no=0) |
| Access to internet at home (internet) | Dummy variable, indicates whether respondent has access to internet at home (yes=1, no=0) |
| Change in self-perception of wealth between 1989 and 2006 (ladder) | The difference between ranking on imaginary wealth-ladder between years 1989 and 2006, reported by head of household |
| Transition related factors | |
| Number of years, worked for wage 1989-2006 (for an employer) | Indicates number of years when respondent worked for wages during the transition period |
| Number of years, worked as self-employed 1989-2006 | Indicates number of years when respondent worked as self-employed during the transition period |
| Moved from state-owned companies to self-employment | Dummy variable, that indicates whether respondent moved from state-owned companies in 1989 to self-employment in 2006 (yes=1, no=0) |
| Years cut down on basic food consumption | Number of years when individual had to cut down on basic food consumption during the transition period |

Continued variables' description

| Variable | Description |
|--|---|
| Ideology | |
| Market economy vs Planned economy vs Doesn't matter (market) | Dummy variable that reflects whether individuals prefer market, planned economy or indifferent between these two (base category is market economy) |
| Democracy vs Authoritarian (democracy) | Dummy variable that reflects whether individuals prefer democracy, authoritarian government or indifferent between these two (base category is democracy) |
| Attitude towards government and society | |
| Trust people | The difference between individuals' level of trust in people in 1989 and 2006 (base category change of complete distrust to complete trust) |
| Trust presidency | Dummy variable that indicates the degree of trust in presidency |
| Trust government | Dummy variable that indicates the degree of trust in government |
| Trust banks and the financial system | Dummy variable that indicates the degree of trust in banks and the financial system |
| Trust foreign investors | Dummy variable that indicates the degree of trust in foreign investors |
| Satisfaction | |
| Economic satisfaction | Dummy variable that indicates whether respondent considers that economic situation now is better than around 1989 |
| Political satisfaction | Dummy variable that indicates whether respondent considers that political situation now is better than around 1989 |
| Life satisfaction wrt to parents | Dummy variable that indicates whether respondent considers that he is doing better than his parents |
| Life satisfaction | Dummy variable that indicates whether respondent is satisfied with life in general |
| Income gap | Dummy variable that indicates whether respondent considers that the gap between rich and poor should be reduced today |
| Corruption | Dummy variable that indicates whether respondent considers that there is less corruption now than in 1989 |
| Individual controls | |
| Gender | Dummy that indicates individual's gender (female=0, male=1) |
| age | age of respondent |
| age ² /100 | Variable that captures U-shaped dependence between age and optimism |
| Religion | Dummy variable that indicates of what religion the respondent is |
| Urban,metropolitan,rural area | Dummy for rural, urban and metropolitan areas |
| Health | Dummy that indicates self-reported level of health |
| Member of ethnic minority | Dummy that indicates whether respondent considers himself a member of ethnic minority (yes=1, no=0) |
| Children | Dummy variable that indicates whether respondent born child during the transition period (yes=1, no=0) |
| Marriage | Dummy variable, that indicates whether respondent is married or not (married=1, not married=0) |
| Household size | Number of household members |
| Number of children | Number of children < 14 years |
| Other controls | |
| Region | Dummy variable for 3 regions, (CEB - base category) |
| Country | Country dummies |

APPENDIX B

Table 1 Results of Probit model regression

| Results of Ordered Probit Regression | 1 | 2 | 3 | 4 |
|--|-----------------------------|--------------------------|---|--|
| | All without children | All with children | Head of household without children | Head of household with children |
| Human Capital | | | | |
| Employment | -0.0620** | -0.014 | -0.0773** | -0.000712 |
| Manager position | -0.0118 | 0.0168 | -0.0143 | 0.0603 |
| Self-employment | 0.0839 | 0.0478 | 0.0704 | 0.0985 |
| Material well-being | | | | |
| Townhouse vs detached house | -0.0546 | -0.0659 | -0.039 | -0.0286 |
| Terrace house vs detached house | 0.0367 | 0.106 | 0.0136 | 0.107 |
| Flat vs detached house | -0.0608*** | -0.0147 | -0.0717** | 0.0355 |
| Dormitory vs detached house | 0.0454 | 0.063 | 0.321* | 0.0746 |
| Part commercial vs detached house | -0.181 | -0.336 | -0.409 | -0.58 |
| Mobile home vs detached house | -0.134 | -0.405*** | -0.246 | -0.652*** |
| Improvised vs detached house | -0.0639 | 0.22 | -0.0479 | 0.390** |
| Income/ expenditures on education | -0.000178* | 1.53E-05 | -0.000211* | 0.00005 |
| SEE vs CEB | 1.190*** | 1.743*** | 1.421*** | 1.635*** |
| CIS vs CEB | 0.144* | 1.506*** | 0.300** | 0.743*** |
| Income*region (SEE vs CEB) | 9.17E-05 | -3.7E-05 | 7.12E-05 | -0.000108 |
| Income*region (CIS vs CEB) | 0.000262 | -2.6E-05 | 0.000246 | -0.000088 |
| Holding of a car | -0.0558** | -0.00152 | -0.0197 | 0.00482 |
| Holding of secondary residency | -0.0297 | -0.00332 | -0.0613 | -0.0345 |
| Holding of a bank account | 0.00145 | -0.0527 | 0.00211 | -0.0791 |
| Holding of a credit/debit card | 0.00194 | -0.00441 | -0.0253 | -0.021 |
| Holding of mobile phone | 0.0624*** | 0.113*** | 0.0381 | 0.158*** |
| Holding of computer | -0.0573* | -0.018 | -0.0613 | -0.00182 |
| Access to internet at home (internet) | 0.00321 | -0.0149 | -0.011 | 0.0175 |
| Change in self-perception of wealth between 1989 and 2006 (ladder) | 0.00176 | 0.0102* | -0.00137 | 0.00686 |
| Transition related work experience | | | | |
| Number of years, worked for wage 1989-2006 (for an employer) | 0.00228 | -0.0028 | 0.00491* | -0.00393 |
| Number of years, worked as self-employed 1989-2006 | -0.00445 | 0.000412 | -0.00157 | -0.000207 |
| Moved from state-owned companies to self-employment | -0.0619 | 0.0447 | -0.0763 | -0.0561 |
| Years cut down on basic food consumption | 0.00344 | 0.00116 | 0.000817 | 0.000496 |
| Ideology | | | | |
| Planned vs market economy | -0.0472** | -0.00296 | 0.00868 | -0.024 |
| Indifference vs market economy | -0.0636** | -0.0383 | -0.0625* | 0.0285 |
| Authoritarian vs democratic regime | -0.111*** | -0.119*** | -0.109*** | -0.110** |
| Indifference vs democratic regime | -0.0932*** | -0.0417 | -0.0631* | -0.112** |

Continued Table 1 Results of Probit model regression

| | All without children | All with children | Head of household without children | Head of household with children |
|--|----------------------|-------------------|------------------------------------|---------------------------------|
| Attitude towards government and society | | | | |
| Trust people 2 | -0.0768 | -0.291 | -0.304 | -0.623 |
| Trust people 3 | 0.324 | -0.366 | 0.159 | -0.773 |
| Trust people 4 | 0.257 | -0.338 | 0.081 | -0.722 |
| Trust people 5 | 0.18 | -0.472 | 0.0521 | -0.885 |
| Trust people 6 | 0.181 | -0.452 | 0.027 | -0.855 |
| Trust people 7 | 0.107 | -0.485 | -0.0339 | -0.904 |
| Trust people 8 | 0.0336 | -0.517* | -0.12 | -0.945* |
| Trust people 9 | -0.00661 | -0.576* | -0.194 | -1.059* |
| Trust the presidency 2 (base - complete distrust) | -0.00407 | 0.0816 | -0.0612 | 0.178** |
| Trust the presidency 3 | 0.0355 | 0.139*** | 0.0111 | 0.191*** |
| Trust the presidency 4 | 0.114*** | 0.155*** | 0.0748 | 0.225*** |
| Trust the presidency 5 | 0.0496 | -0.144* | 0.122 | -0.0692 |
| Trust the government 2 (base - complete distrust) | 0.0766** | 0.0297 | 0.0905** | 0.00831 |
| Trust the government 3 | 0.103*** | 0.0424 | 0.118*** | 0.0786 |
| Trust the government 4 | 0.0949*** | 0.0121 | 0.124*** | 0.0513 |
| Trust the government 5 | 0.150*** | 0.0731 | 0.136** | 0.0824 |
| Trust banks 2 (base - complete distrust) | 0.132*** | 0.145** | 0.152*** | 0.0737 |
| Trust banks 3 | 0.0849** | 0.107** | 0.0768 | 0.022 |
| Trust banks 4 | 0.0785** | 0.169*** | 0.110** | 0.082 |
| Trust banks 5 | 0.121*** | 0.221*** | 0.096 | 0.165** |
| Trust foreign investors 2 (base - complete distrust) | 0.0348 | 0.130** | 0.0153 | 0.165** |
| Trust foreign investors 3 | 0.0675** | 0.155*** | 0.0798* | 0.186*** |
| Trust foreign investors 4 | 0.146*** | 0.165*** | 0.167*** | 0.235*** |
| Trust foreign investors 5 | 0.145*** | 0.263*** | 0.180*** | 0.351*** |
| Satisfaction | | | | |
| Satisfaction with economic situation 2(base-strongly disagree) | 0.0953*** | 0.102** | 0.0945** | 0.109 |
| Satisfaction with economic situation 3 | 0.210*** | 0.223*** | 0.229*** | 0.269*** |
| Satisfaction with economic situation 4 | 0.331*** | 0.350*** | 0.350*** | 0.345*** |
| Satisfaction with economic situation 5 | 0.491*** | 0.487*** | 0.543*** | 0.480*** |
| Satisfaction with political situation 2 | 0.147*** | 0.128** | 0.103** | 0.137* |
| Satisfaction with political situation 3 | 0.222*** | 0.274*** | 0.195*** | 0.248*** |
| Satisfaction with political situation 4 | 0.327*** | 0.389*** | 0.294*** | 0.384*** |
| Satisfaction with political situation 5 | 0.526*** | 0.493*** | 0.538*** | 0.361*** |
| Life satisfaction wrt to parents 2 | 0.186*** | 0.211*** | 0.162*** | 0.217*** |
| Life satisfaction wrt to parents 3 | 0.287*** | 0.259*** | 0.261*** | 0.252*** |
| Life satisfaction wrt to parents 4 | 0.427*** | 0.415*** | 0.399*** | 0.460*** |
| Life satisfaction wrt to parents 5 | 0.595*** | 0.637*** | 0.575*** | 0.675*** |
| Life satisfaction 2(base-strongly disagree) | 0.388*** | 0.439*** | 0.387*** | 0.413*** |
| Life satisfaction 3 | 0.572*** | 0.647*** | 0.535*** | 0.618*** |
| Life satisfaction 4 | 0.832*** | 0.890*** | 0.785*** | 0.899*** |
| Life satisfaction 5 | 1.096*** | 1.469*** | 1.025*** | 1.482*** |
| The gap between rich and poor should be reduced 2 | 0.280*** | 0.135 | 0.292*** | 0.0215 |
| The gap between rich and poor should be reduced 3 | 0.315*** | 0.228** | 0.313*** | 0.063 |
| The gap between rich and poor should be reduced 4 | 0.371*** | 0.249*** | 0.336*** | 0.0404 |
| The gap between rich and poor should be reduces 5 | 0.487*** | 0.385*** | 0.425*** | 0.167 |
| Today is less corruption 2 (base -strongly disagree) | 0.0718*** | 0.0213 | 0.0975*** | -0.00974 |
| Today is less corruption 3 | 0.0812*** | 0.0397 | 0.0863** | 0.0036 |
| Today is less corruption 4 | 0.157*** | 0.071 | 0.204*** | -0.00144 |
| Today is less corruption 5 | 0.379*** | 0.251*** | 0.455*** | 0.108 |

Continued Table 1 Results of Probit model regression

Individual controls

| | | | | |
|-------------------------------------|-----------|-----------|-----------|---------|
| Gender | 0.0381** | 0.0740*** | 0.0718** | 0.0781 |
| Age ² /100 | 0.0120*** | 0.0107 | 0.0111** | 0.0115 |
| Buddhist vs agnostic | 0.237** | 0.214** | 0.0945 | 0.267** |
| Jewish vs agnostic | 0.728*** | 0.529* | 0.755*** | 0.603 |
| Christian vs agnostic | -0.0297 | -0.0836 | -0.00047 | -0.106 |
| Muslim vs agnostic | 0.0667 | -0.0383 | 0.110* | 0.0122 |
| Other vs agnostic | -0.0275 | -0.171 | 0.00563 | -0.248* |
| Rural vs urban | 0.0324 | 0.00616 | 0.0129 | -0.0295 |
| Metropolitan vs urban | 0.0462* | -0.0169 | 0.0639* | -0.0306 |
| Good health vs very good | -0.048 | -0.0217 | 0.0145 | 0.0119 |
| Medium health vs very good | -0.0633* | -0.0752* | -0.00205 | 0.0148 |
| Bad health vs very good | -0.0236 | -0.0467 | 0.0388 | 0.0228 |
| Very bad health vs very good | 0.0339 | -0.142 | 0.0762 | -0.147 |
| Consider oneself ethnic minority | 0.0136 | -0.0658* | 0.00662 | -0.0863 |
| Marriage status | | | -0.0653** | -0.0533 |
| Household size / number of children | 0.00537 | -0.0161* | 0.0206 | 0.0135 |
| | -0.00646 | -0.00834 | -0.0244 | -0.0191 |
| Observations | 15503 | 8200 | 8931 | 3990 |
| Pseudo R2 | 0.1356 | 0.1584 | 0.1327 | 0.1609 |

*** p<0.01, ** p<0.05, * p<0.1

note: we do not report coefficients for country-dummies, but all of them are significant and negative

Table 2

Marginal effect for regression that includes all respondents without children

| variable | strongly disagree | disagree | neither agree nor disagree | agree | strongly agree |
|---|-------------------|----------|----------------------------|----------|----------------|
| Human Capital | | | | | |
| Employment | 0.004537 | 0.010196 | 0.005734 | -0.01036 | -0.0101 |
| Material well-being | | | | | |
| Townhouse vs detached house | | 0.012409 | | -0.01039 | |
| flat vs detached house | 5.55E-03 | | 0.006917 | -0.01266 | -0.01222 |
| Improvised vs detached house | | 0.011082 | | | |
| Holding of a car | 0.004939 | -0.01363 | 0.006216 | -0.01128 | -0.01096 |
| Holding of mobile phone | -0.00609 | 0.01108 | -0.00762 | 0.013887 | 0.013453 |
| Holding of computer | 0.004986 | 0.009566 | 0.006118 | -0.01135 | -0.01083 |
| Ideology | | | | | |
| Planned vs market economy | 0.004293 | 0.012425 | 0.005305 | -0.00978 | -0.00938 |
| Indifference vs market economy | 0.005573 | 0.023049 | 0.0069 | -0.0127 | -0.0122 |
| Authoritarian vs democratic regime | 0.010755 | 0.019344 | 0.012002 | -0.02416 | -0.02165 |
| Indifference vs democratic regime | 0.008808 | | 0.010489 | -0.01996 | -0.01868 |
| Trust the presidency 2 (base - complete distrust) | 0.003552 | | | | |
| Trust the presidency 3 | | -0.02234 | | | |
| Trust the presidency 5 | -0.00943 | -0.01667 | -0.01366 | 0.021777 | 0.023649 |
| Trust the government 2 (base - complete distrust) | -0.00713 | -0.02098 | -0.00998 | 0.016437 | 0.017348 |
| Trust the government 3 | -0.00933 | -0.03026 | -0.01346 | 0.021537 | 0.023312 |
| Trust the government 4 | -0.0089 | -0.01178 | -0.01274 | 0.020528 | 0.022082 |
| Trust the government 5 | -0.01232 | -0.02666 | -0.01958 | 0.028527 | 0.033632 |
| Trust banks 2 (base - complete distrust) | -0.01105 | -0.01644 | -0.0168 | 0.025556 | 0.028953 |
| Trust banks 3 | -0.00761 | -0.02318 | -0.01063 | 0.01754 | 0.018482 |
| Trust banks 4 | -0.00712 | -0.03452 | -0.00967 | 0.016363 | 0.01687 |
| Trust banks 5 | -0.00965 | -0.00853 | -0.01448 | 0.02233 | 0.024977 |
| Trust foreign investors 2 (base - complete distrust) | -0.0037 | -0.02978 | | | |
| Trust foreign investors 3 | -0.00632 | -0.03024 | -0.00865 | 0.014548 | 0.015075 |
| Trust foreign investors 4 | -0.0124 | -0.01335 | -0.01863 | 0.028642 | 0.032167 |
| Trust foreign investors 5 | -0.01227 | -0.01843 | -0.01967 | 0.028408 | 0.033762 |

Continued Table 2
Marginal effect for regression that includes all respondents without children

| variable | strongly disagree | disagree | neither agree nor disagree | agree | strongly agree |
|--|--------------------------|-----------------|-----------------------------------|--------------|-----------------------|
| Satisfaction | | | | | |
| Satisfaction with economic situation 2(base-strongly disagree) | -0.00793 | -0.06339 | -0.01095 | 0.018246 | 0.019065 |
| Satisfaction with economic situation 3 | -0.01682 | -0.08594 | -0.02776 | 0.0388 | 0.047657 |
| Satisfaction with economic situation 4 | -0.02532 | -0.05286 | -0.04271 | 0.057694 | 0.073728 |
| Satisfaction with economic situation 5 | -0.03003 | -0.03054 | -0.07055 | 0.063461 | 0.123053 |
| Satisfaction with political situation 2 (base-strongly disagree) | -0.01283 | -0.06415 | -0.01886 | 0.029589 | 0.032645 |
| Satisfaction with political situation 3 | -0.01814 | -0.09296 | -0.02937 | 0.041778 | 0.050533 |
| Satisfaction with political situation 4 | -0.02554 | -0.05278 | -0.04346 | 0.058148 | 0.074994 |
| Satisfaction with political situation 5 | -0.03177 | -0.037 | -0.07897 | 0.064777 | 0.138926 |
| Life satisfaction wrt to parents 2(base-strongly disagree) | -0.01435 | -0.08024 | -0.02223 | 0.033151 | 0.03831 |
| Life satisfaction wrt to parents 3 | -0.02195 | -0.10036 | -0.03622 | 0.050304 | 0.062418 |
| Life satisfaction wrt to parents 4 | -0.03333 | -0.06133 | -0.05163 | 0.074907 | 0.09029 |
| Life satisfaction wrt to parents 5 | -0.03549 | -0.05649 | -0.08206 | 0.073438 | 0.144473 |
| Life satisfaction 2(base-strongly disagree) | -0.02865 | -0.15098 | -0.05083 | 0.064656 | 0.087862 |
| Life satisfaction 3 | -0.03948 | -0.15363 | -0.07747 | 0.084821 | 0.136084 |
| Life satisfaction 4 | -0.06275 | -0.09975 | -0.10459 | 0.126449 | 0.191875 |
| Life satisfaction 5 | -0.04651 | -0.0868 | -0.16447 | 0.031954 | 0.332657 |
| The gap between rich and poor should be reduced 2 (base - strongly disagree) | -0.01973 | -0.07095 | -0.03807 | 0.04503 | 0.065121 |
| The gap between rich and poor should be reduced 3 | -0.02233 | -0.09393 | -0.04256 | 0.050772 | 0.07299 |
| The gap between rich and poor should be reduced 4 | -0.02993 | -0.0866 | -0.04432 | 0.067686 | 0.07752 |
| The gap between rich and poor should be reduces 5 | -0.04175 | -0.08068 | -0.05505 | 0.0921 | 0.098629 |
| Today is less corruption 2 (base -strongly disagree) | -0.02892 | -0.01538 | -0.07537 | 0.0584 | 0.132486 |
| Today is less corruption 2 (base -strongly disagree) | -0.00665 | -0.03249 | -0.00905 | 0.015304 | 0.015788 |
| Today is less corruption 3 | -0.0081 | -0.06712 | -0.01163 | 0.018701 | 0.020145 |
| Today is less corruption 4 | -0.01316 | -0.04106 | -0.0212 | 0.030457 | 0.036398 |
| Today is less corruption 5 | -0.02413 | -0.04106 | -0.05242 | 0.053468 | 0.090206 |
| Individual controls | | | | | |
| Gender | -0.00339 | -0.00207 | -0.0044 | 0.007765 | 0.007726 |
| Age | 0.000883 | -0.0421 | 0.001135 | -0.00202 | -0.00199 |
| Age^2/100 | -0.00091 | -0.11445 | -0.00118 | 0.002094 | 0.002067 |
| Buddhist vs agnostic | -0.03455 | -0.00979 | -0.116 | 0.048062 | 0.216939 |
| Jewish vs agnostic | -0.00425 | 0.005335 | -0.00572 | 0.00977 | 0.009992 |
| Good health vs very good | 0.004182 | | | | |
| Medium health vs very good | 0.005839 | 0.172931 | 0.00729 | -0.01332 | -0.01287 |
| Very bad health vs very good | 0.002384 | 0.151308 | | | |
| Consider oneself ethnic minority | | 0.158122 | | | |

Table 3

Marginal effect for regression that includes all respondents with children

| variable | strongly disagree | disagree | neither agree nor disagree | agree | strongly agree |
|--|--------------------------|-----------------|-----------------------------------|--------------|-----------------------|
| Material well-being | | | | | |
| Improvised vs detached house | 0.035338 | 0.084711 | 0.03966 | -0.08807 | -0.07164 |
| Holding of mobile phone | -0.00585 | -0.01818 | -0.01195 | 0.015459 | 0.020517 |
| Change in self-perception of wealth between 1989 and 2006 (ladder) | -0.00065 | -0.00206 | -0.0014 | 0.001706 | 0.002401 |
| Ideology | | | | | |
| Authoritarian vs democratic regime | 0.007909 | 0.023805 | 0.015015 | -0.02098 | -0.02575 |
| Indifference vs democratic regime | 0.003378 | 0.010556 | 0.00697 | -0.00894 | -0.01197 |
| Attitude towards government and society | | | | | |
| Trust people 3 | | | 0.041225 | | -0.07536 |
| Trust people 4 | | | 0.039548 | | -0.0709 |
| Trust people 5 | | 0.101309 | 0.064547 | -0.0859 | -0.11428 |
| Trust people 6 | | | 0.050991 | | -0.09225 |
| Trust people 7 | | 0.11291 | 0.052332 | | -0.09635 |
| Trust people 8 | | 0.120024 | 0.052912 | | -0.09923 |
| Trust people 9 | | 0.133603 | 0.051546 | -0.1471 | -0.10223 |
| Trust the presidency 3 | -0.00554 | -0.01842 | -0.01313 | 0.01432 | 0.022763 |
| Trust the presidency 4 | -0.00809 | -0.02687 | -0.01916 | 0.020867 | 0.033252 |
| Trust the presidency 5 | -0.01008 | -0.03395 | -0.02464 | 0.025716 | 0.042962 |
| Trust banks 2 (base - complete distrust) | -0.0082 | -0.0281 | -0.02078 | 0.020769 | -0.02258 |
| Trust banks 3 | -0.00607 | -0.02013 | -0.01433 | 0.015692 | 0.036318 |
| Trust banks 4 | -0.00948 | -0.03116 | -0.02196 | 0.024515 | 0.024836 |
| Trust banks 5 | -0.01161 | -0.04052 | -0.03074 | 0.028704 | 0.038075 |
| Trust banks 6 | -0.00747 | -0.02567 | -0.01905 | 0.018895 | 0.054164 |
| Trust foreign investors 2 (base - complete distrust) | -0.00737 | -0.02495 | -0.01818 | 0.018835 | 0.033292 |
| Trust foreign investors 3 | -0.00913 | -0.03066 | -0.02216 | 0.023371 | 0.031662 |
| Trust foreign investors 4 | -0.00946 | -0.03194 | -0.02324 | 0.024136 | 0.038571 |
| Trust foreign investors 5 | -0.01361 | -0.04929 | -0.03911 | 0.032099 | 0.040508 |
| Trust foreign investors 6 | -0.00563 | -0.01877 | -0.01342 | 0.014544 | 0.069911 |

Continued Table 3
Marginal effect for regression that includes all respondents with children

| variable | strongly disagree | disagree | neither agree nor disagree | agree | strongly agree |
|---|--------------------------|-----------------|-----------------------------------|--------------|-----------------------|
| Satisfaction | | | | | |
| Satisfaction with economic situation 2(base-strongly disagree) | -0.00563 | -0.01849 | -0.013 | 0.014639 | 0.023277 |
| Satisfaction with economic situation 3 | -0.01116 | -0.03906 | -0.0297 | 0.027574 | 0.02248 |
| Satisfaction with economic situation 4 | -0.01795 | -0.06186 | -0.04658 | 0.043782 | 0.05235 |
| Satisfaction with economic situation 5 | -0.01966 | -0.07755 | -0.06861 | 0.036604 | 0.082605 |
| Satisfaction with political situation 2 (base-strongly disagree) | -0.00663 | -0.02201 | -0.01568 | 0.01713 | 0.084982 |
| Satisfaction with political situation 3 | -0.01376 | -0.04847 | -0.03724 | 0.033478 | 0.027195 |
| Satisfaction with political situation 4 | -0.01976 | -0.06876 | -0.05253 | 0.047271 | 0.065988 |
| Satisfaction with political situation 5 | -0.01973 | -0.07829 | -0.06974 | 0.035956 | 0.093778 |
| Life satisfaction wrt to parents 2(base-strongly disagree) | -0.01101 | -0.03724 | -0.0272 | 0.027929 | 0.047513 |
| Life satisfaction wrt to parents 3 | -0.0131 | -0.04533 | -0.03407 | 0.032507 | 0.060003 |
| Life satisfaction wrt to parents 4 | -0.02115 | -0.07204 | -0.0538 | 0.051297 | 0.095692 |
| Life satisfaction wrt to parents 5 | -0.02359 | -0.09639 | -0.08985 | 0.033787 | 0.176044 |
| Life satisfaction 2(base-strongly disagree) | -0.02042 | -0.0748 | -0.06084 | 0.045144 | 0.110914 |
| Life satisfaction 3 | -0.02823 | -0.10528 | -0.08933 | 0.053699 | 0.169141 |
| Life satisfaction 4 | -0.04726 | -0.15238 | -0.11428 | 0.095729 | 0.218199 |
| Life satisfaction 5 | -0.03531 | -0.15974 | -0.18407 | -0.10057 | 0.479698 |
| The gap between rich and poor should be reduced 2 (base -strongly disagree) | -0.00786 | -0.02726 | | 0.019747 | |
| The gap between rich and poor should be reduced 3 | -0.01192 | -0.04265 | -0.03328 | 0.028768 | 0.059084 |
| The gap between rich and poor should be reduced 4 | -0.01484 | -0.04861 | -0.03428 | 0.037998 | 0.059743 |
| The gap between rich and poor should be reduced 5 | -0.02296 | -0.07391 | -0.05161 | 0.057721 | 0.090761 |
| Today is less corruption 4 | -0.00448 | -0.01485 | | 0.011601 | 0.018268 |
| Today is less corruption 5 | -0.01243 | -0.0458 | -0.03698 | 0.028867 | 0.066352 |
| Individual controls | | | | | |
| Gender | -0.00371 | -0.01193 | -0.00815 | 0.009755 | 0.014041 |
| Buddhist vs agnostic | -0.01005 | -0.03581 | -0.02777 | 0.024517 | 0.049115 |
| Jewish vs agnostic | -0.01893 | -0.07968 | -0.07573 | | |
| Consider oneself ethnic minority | | | 0.00789 | | -0.01353 |
| Household size / number of children | 0.000831 | 0.00265 | 0.001793 | -0.00219 | -0.00308 |

Table 4

**Marginal effect for regression
that includes head of households
as respondents without children**

| variable | stronglee | | neither | | strongly |
|--|-----------|----------|----------|----------|-----------|
| | disagree | disagree | disagree | agree | |
| Human Capital | | | | | |
| Employment | 0.007415 | 0.01532 | 0.008133 | -0.01567 | -0.01519 |
| Dormitory vs detached house | 0.006364 | 0.013156 | 0.006989 | -0.01346 | -0.01305 |
| Part commercial vs detached house | -0.02033 | -0.05006 | -0.03513 | 0.043185 | |
| Mobile home vs detached house | 0.051683 | 0.080167 | 0.024131 | | |
| Improvised vs detached house | | | 0.021705 | | -4.85E-02 |
| Income/ expenditures on education | 1.87E-05 | 0.000039 | 2.11E-05 | -4E-05 | -3.9E-05 |
| Transition related work experience | | | | | |
| Number of years, worked for wage 1989-2006 (for an employer) | -0.00035 | -0.00074 | | 0.000753 | 0.000743 |
| Ideology | | | | | |
| Planned vs market economy | 0.012013 | 0.023751 | 0.011699 | -0.02501 | -0.02246 |
| Indifference vs market economy | 0.007007 | 0.014336 | 0.007485 | -0.01477 | -0.01406 |
| Trust the government 2 (base - complete distrust) | -0.00644 | -0.01382 | -0.00781 | 0.013754 | 0.014319 |
| Trust the government 3 | -0.00972 | -0.02117 | -0.01227 | 0.020798 | 0.02236 |
| Trust the government 4 | -0.01384 | -0.0307 | -0.01834 | 0.02965 | 0.033235 |
| Trust the government 5 | -0.01681 | -0.03912 | -0.0252 | 0.036063 | 0.045069 |
| Trust banks 2 (base - complete distrust) | -0.01196 | -0.02663 | -0.016 | 0.025656 | 0.028938 |
| Trust banks 3 | -0.00715 | -0.01535 | -0.00869 | 0.015268 | 0.015923 |
| Trust banks 4 | -0.00935 | -0.02005 | -0.01133 | 0.019942 | 0.020782 |
| Trust banks 5 | -0.00825 | -0.01808 | -0.01057 | 0.017681 | |
| Trust foreign investors 3 | -0.00724 | -0.01551 | -0.00874 | 0.015455 | 0.016038 |
| Trust foreign investors 4 | -0.01609 | -0.03627 | -0.02225 | 0.034472 | 0.040133 |
| Trust foreaian investors 5 | -0.01571 | -0.03651 | -0.02344 | 0.033737 | 0.041921 |

Continued Table 4
Marginal effect for regression
that includes head of households
as respondents without children

| variable | strongly disagree | | neither agree nor disagree | | strongly agree |
|---|-------------------|----------|----------------------------|----------|----------------|
| | disagree | disagree | disagree | agree | agree |
| Satisfaction | | | | | |
| Satisfaction with economic situation 2(base-strongly disagree) | -0.0085 | -0.0182 | -0.01026 | 0.013713 | 0.018836 |
| Satisfaction with economic situation 3 | -0.01946 | -0.04498 | -0.02876 | 0.018123 | 0.051586 |
| Satisfaction with economic situation 4 | -0.02846 | -0.06604 | -0.04291 | 0.041617 | 0.077304 |
| Satisfaction with economic situation 5 | -0.03484 | -0.09383 | -0.07639 | 0.060101 | 0.138183 |
| Satisfaction with political situation 2 (base-strongly disagree) | -0.00995 | -0.02152 | -0.01234 | 0.021256 | 0.022552 |
| Satisfaction with political situation 3 | -0.01738 | -0.03913 | -0.02399 | 0.037189 | 0.043311 |
| Satisfaction with political situation 4 | -0.02566 | -0.059 | -0.03765 | 0.054461 | 0.067844 |
| Satisfaction with political situation 5 | -0.03539 | -0.09626 | -0.07958 | 0.06688 | 0.144344 |
| Life satisfaction wrt to parents 2(base-strongly disagree) | -0.01314 | -0.0292 | -0.01749 | 0.028172 | 0.031661 |
| Life satisfaction wrt to parents 3 | -0.02154 | -0.04901 | -0.03065 | 0.045953 | 0.055251 |
| Life satisfaction wrt to parents 4 | -0.03318 | -0.0731 | -0.04408 | 0.069582 | 0.08077 |
| Life satisfaction wrt to parents 5 | -0.03781 | -0.09759 | -0.07533 | 0.074429 | 0.136309 |
| Life satisfaction 2(base-strongly disagree) | -0.03119 | -0.07321 | -0.04858 | 0.065448 | 0.087528 |
| Life satisfaction 3 | -0.0409 | -0.09862 | -0.06935 | 0.082937 | 0.125927 |
| Life satisfaction 4 | -0.06308 | -0.142 | -0.0948 | 0.120726 | 0.179152 |
| Life satisfaction 5 | -0.04853 | -0.14786 | -0.15061 | 0.044836 | 0.302162 |
| The gap between rich and poor should be reduced 2 (base -strongly disagree) | -0.02291 | -0.05684 | -0.04044 | 0.04835 | 0.071846 |
| The gap between rich and poor should be reduced 3 | -0.0228 | -0.05479 | -0.03721 | 0.048437 | 0.066364 |
| The gap between rich and poor should be reduced 4 | -0.02941 | -0.06438 | -0.03822 | 0.061978 | 0.070032 |
| The gap between rich and poor should be reduced 5 | -0.03976 | -0.08317 | -0.04651 | 0.082185 | 0.087262 |
| Today is less corruption 2 (base -strongly disagree) | -0.00898 | -0.01925 | -0.01086 | 0.019158 | 0.019932 |
| Today is less corruption 3 | -0.00955 | -0.02086 | -0.01214 | 0.020443 | 0.022096 |
| Today is less corruption 4 | -0.01758 | -0.0409 | -0.02636 | 0.037677 | 0.047159 |
| Today is less corruption 5 | -0.03023 | -0.08088 | -0.06463 | 0.059876 | 0.115865 |
| Individual controls | | | | | |
| Gender | -0.00672 | -0.01397 | -0.00749 | 0.014232 | 0.013953 |
| Age | 0.001024 | 0.002139 | 0.001156 | -0.00217 | -0.00215 |
| Age^2/100 | -0.00108 | -0.00226 | -0.00122 | 0.002298 | 0.002269 |
| Jewish vs agnostic | -0.03619 | -0.10793 | -0.10146 | 0.056077 | 0.189507 |
| Muslim vs agnostic | -0.00941 | -0.02069 | | 0.020178 | |
| Marriage | 0.006094 | 0.012598 | 0.006692 | -0.01289 | -0.0125 |

Table 5

Marginal effect for regression that includes head of households as respondents without children

| variable | stronglee disagree | disagree | neither agree nor disagree | agree | strongly agree |
|--|--------------------|----------|----------------------------|----------|----------------|
| Material well-being | | | | | |
| Part commercial vs detached house | | | 0.043046 | | -0.09629 |
| Mobile home vs detached house | 0.069338 | 0.134624 | 0.04441 | -0.15094 | -0.09743 |
| Improvised vs detached house | -0.017 | -0.06616 | -0.0558 | 0.032346 | 0.106614 |
| Holding of mobile phone | -0.00951 | -0.02845 | -0.01738 | 0.024435 | 0.030907 |
| Ideology | | | | | |
| Authoritarian vs democratic regime | 0.008754 | 0.025715 | 0.015341 | -0.02254 | -0.02727 |
| Indifference vs democratic regime | 0.005733 | 0.017285 | 0.01065 | -0.01475 | -0.01891 |
| Trust people 2 | | | 0.043516 | | -0.09456 |
| Trust people 3 | | 0.165098 | 0.041845 | | -0.10987 |
| Trust people 4 | | | 0.045833 | | -0.1056 |
| Trust people 5 | | 0.169404 | 0.094441 | -0.14553 | -0.18388 |
| Trust the presidency 3 | -0.01171 | -0.03992 | -0.02871 | 0.028352 | 0.051977 |
| Trust the presidency 4 | -0.01187 | -0.03922 | -0.02716 | 0.029372 | 0.048876 |
| Trust the presidency 5 | -0.01432 | -0.0483 | -0.03438 | 0.034697 | 0.062296 |
| Trust banks 5 | -0.01021 | -0.03438 | -0.02433 | 0.02504 | 0.043882 |
| Trust foreign investors 2 (base - complete distrust) | -0.00951 | -0.03199 | -0.02258 | 0.023404 | 0.040684 |
| Trust foreign investors 3 | -0.0111 | -0.03682 | -0.0256 | 0.027456 | 0.046059 |
| Trust foreign investors 4 | -0.01348 | -0.04568 | -0.03267 | 0.032632 | 0.059203 |
| Trust foreign investors 5 | -0.01754 | -0.06433 | -0.05074 | 0.037873 | 0.094737 |
| Satisfaction | | | | | |
| Satisfaction with economic situation 2(base-strongly disagree) | -0.00645 | -0.02079 | -0.01393 | 0.016288 | |
| Satisfaction with economic situation 3 | -0.01393 | -0.0487 | -0.03614 | 0.032742 | 0.066026 |
| Satisfaction with economic situation 4 | -0.0186 | -0.06278 | -0.04498 | 0.044312 | 0.082057 |
| Satisfaction with economic situation 5 | -0.02104 | -0.08122 | -0.06848 | 0.038701 | 0.132041 |
| Satisfaction with political situation 2 (base-strongly disagree) | -0.00716 | -0.02328 | -0.01578 | 0.017996 | |
| Satisfaction with political situation 3 | -0.01286 | -0.04397 | -0.03174 | 0.030988 | 0.057588 |
| Satisfaction with political situation 4 | -0.02062 | -0.0702 | -0.05099 | 0.048229 | 0.093576 |
| Satisfaction with political situation 5 | -0.01722 | -0.06388 | -0.05103 | 0.036487 | 0.095635 |
| Life satisfaction wrt to parents 2(base-strongly disagree) | -0.01225 | -0.0408 | -0.02855 | 0.030119 | 0.051482 |
| Life satisfaction wrt to parents 3 | -0.01366 | -0.04639 | -0.03328 | 0.032981 | 0.060348 |
| Life satisfaction wrt to parents 4 | -0.02482 | -0.08316 | -0.05972 | 0.057584 | 0.110104 |
| Life satisfaction wrt to parents 5 | -0.02611 | -0.10564 | -0.09555 | 0.033426 | 0.193868 |
| Life satisfaction 2(base-strongly disagree) | -0.02057 | -0.07318 | -0.05602 | 0.045538 | 0.104233 |
| Life satisfaction 3 | -0.0285 | -0.10401 | -0.0837 | 0.054752 | 0.161453 |
| Life satisfaction 4 | -0.04864 | -0.15625 | -0.11408 | 0.093542 | 0.225427 |
| Life satisfaction 5 | -0.03714 | -0.16585 | -0.1846 | -0.10653 | 0.494127 |

Table 6
Robustness check: results of Logit Model

| | All without children | All with children | Head of household without children | Head of household with children |
|--|-----------------------------|--------------------------|---|--|
| Human Capital | | | | |
| Employment | -0.157** | -0.0737 | -0.189* | 0.0752 |
| Manager position | -0.053 | 0.0228 | -0.0679 | 0.012 |
| Self-employment | 0.383** | 0.0783 | 0.341 | 0.172 |
| Material well-being | | | | |
| Townhouse vs detached house | -0.113 | -0.257 | -0.0664 | 0.187 |
| Terrace house vs detached house | 0.112 | 0.317 | 0.125 | 0.0859 |
| flat vs detached house | -0.193*** | 0.0175 | -0.239*** | 0.146 |
| dormitory vs detached house | -0.158 | 0.0352 | 0.287 | 0.222 |
| Part commercial vs detached house | -1.580** | -0.564 | -2.153** | -1.321 |
| Mobile home vs detached house | -0.485 | -0.535 | -0.551 | -1.140** |
| Improvised vs detached house | 0.0727 | 0.535 | -0.197 | 0.913 |
| Income/ expenditures on education | -0.00025 | 2.36E-05 | -0.000478 | 0.000016 |
| SEE vs CEB | 3.937*** | 4.117*** | 2.225*** | 2.532*** |
| CIS vs CEB | 2.295*** | 2.194*** | -0.949*** | 1.225*** |
| Income*region (SEE vs CEB) | -9.8E-05 | -0.00016 | 0.0000165 | -0.000219 |
| Income*region (CIS vs CEB) | 0.000729 | -4.9E-05 | 0.000918* | -0.000086 |
| Holding of a car | -0.176*** | 0.00822 | -0.124 | 0.0629 |
| Holding of secondary residency | -0.0681 | -0.0478 | -0.185* | -0.152 |
| Holding of a bank account | -0.0556 | -0.161 | -0.0673 | -0.207 |
| Holding of a credit/debit card | 0.000789 | -0.0446 | -0.0235 | -0.0793 |
| Holding of mobile phone | 0.128* | 0.247** | 0.157* | 0.346** |
| Holding of computer | -0.169* | -0.00011 | -0.149 | 0.0123 |
| Access to internet at home (internet) | -0.0173 | -0.0194 | -0.0761 | 0.145 |
| Change in self-perception of wealth between 1989 and 2006 (ladder) | 0.0159 | 0.0143 | 0.000141 | 0.00896 |
| Transition related work experience | | | | |
| Number of years, worked for wage 1989-2006 (for an employer) | 0.00275 | -0.00729 | 0.0125* | -0.0151 |
| Number of years, worked as self-employed 1989-2006 | -0.0281** | -0.00492 | -0.0145 | -0.0016 |
| Moved from state-owned companies to self-employment | -0.182 | 0.0676 | -0.114 | -0.411 |
| Years cut down on basic food consumption | 0.00451 | 0.00689 | -0.00281 | 0.00233 |
| Ideology | | | | |
| Planned vs market economy | -0.162** | -0.0227 | -0.0969 | 0.00739 |
| Indifference vs market economy | -0.236*** | -0.0255 | -0.228** | 0.115 |
| Authoritarian vs democratic regime | -0.291*** | -0.312*** | -0.275*** | -0.409*** |
| Indifference vs democratic regime | -0.277*** | -0.200** | -0.190** | -0.383*** |

Continued Table 6: Results of Logit Model

| Attitude towards government and society | All without children | All with children | Head of household without children | Head of household with children |
|--|-----------------------------|--------------------------|---|--|
| Trust people 2 | -1.269* | -1.877* | -2.006* | -1.589 |
| Trust people 3 | 0.382 | -1.364 | -0.284 | -1.275 |
| Trust people 4 | 0.108 | -1.431 | -0.457 | -1.158 |
| Trust people 6 | -0.00383 | -1.537 | -0.467 | -1.447 |
| Trust people 6 | -0.0711 | -1.503 | -0.517 | -1.317 |
| Trust people 7 | -0.232 | -1.626* | -0.688 | -1.502 |
| Trust people 8 | -0.401 | -1.788* | -0.877 | -1.674 |
| Trust people 9 | -0.375 | -1.840* | -0.95 | -1.97 |
| Trust the presidency 2 (base - complete distrust) | -0.0548 | -0.0343 | -0.103 | 0.157 |
| Trust the presidency 3 | 0.0211 | 0.0864 | -0.12 | 0.470** |
| Trust the presidency 4 | 0.144 | 0.430*** | 0.174 | 0.747*** |
| Trust the presidency 5 | 0.368*** | 0.299* | 0.302** | 0.596*** |
| Trust the government 2 (base - complete distrust) | -0.0842 | -0.133 | -0.108 | -0.198 |
| Trust the government 3 | -0.0932 | -0.14 | -0.121 | -0.211 |
| Trust the government 4 | -0.0959 | -0.135 | -0.125 | -0.198 |
| Trust the government 5 | 0.327** | 0.264 | 0.285* | 0.0299 |
| Trust banks 2 (base - complete distrust) | 0.366*** | 0.309** | 0.395*** | 0.18 |
| Trust banks 3 | 0.243*** | 0.192 | 0.149 | 0.128 |
| Trust banks 4 | 0.191** | 0.394*** | 0.196 | 0.284 |
| Trust banks 5 | 0.269** | 0.544*** | 0.137 | 0.594** |
| Trust foreign investors 2 (base - complete distrust) | 0.00562 | 0.204 | 0.0116 | 0.463** |
| Trust foreign investors 3 | 0.0761 | 0.334** | 0.199* | 0.402** |
| Trust foreign investors 4 | 0.264*** | 0.376*** | 0.380*** | 0.505** |
| Trust foreign investors 5 | 0.276** | 0.530*** | 0.427** | 0.697*** |
| Satisfaction | | | | |
| Satisfaction with economic situation 2(base-strongly disagree) | 0.0594 | 0.12 | 0.0908 | 0.128 |
| Satisfaction with economic situation 3 | 0.475*** | 0.580*** | 0.583*** | 0.926*** |
| Satisfaction with economic situation 4 | 0.731*** | 0.835*** | 0.850*** | 1.035*** |
| Satisfaction with economic situation 5 | 0.832*** | 1.310*** | 1.047*** | 1.424*** |
| Satisfaction with political situation 2 (base-strongly disagree) | 0.107 | -0.0456 | 0.0489 | 0.0836 |
| Satisfaction with political situation 3 | 0.393*** | 0.403*** | 0.324*** | 0.429** |
| Satisfaction with political situation 4 | 0.658*** | 0.751*** | 0.490*** | 0.787*** |
| Satisfaction with political situation 5 | 0.785*** | 0.468** | 0.748*** | 0.387 |
| Life satisfaction wrt to parents 2(base-strongly disagree) | 0.0708 | 0.198 | -0.00562 | 0.273 |
| Life satisfaction wrt to parents 3 | 0.452*** | 0.580*** | 0.407*** | 0.504** |
| Life satisfaction wrt to parents 4 | 0.811*** | 0.887*** | 0.722*** | 1.036*** |
| Life satisfaction wrt to parents 5 | 0.722*** | 0.824*** | 0.780*** | 1.038*** |
| Life satisfaction 2(base-strongly disagree) | 0.444*** | 0.429*** | 0.446*** | 0.252 |
| Life satisfaction 3 | 0.993*** | 1.129*** | 0.899*** | 0.950*** |
| Life satisfaction 4 | 1.573*** | 1.607*** | 1.534*** | 1.609*** |
| Life satisfaction 5 | 1.383*** | 2.075*** | 1.316*** | 2.093*** |
| The gap between rich and poor should be reduced 2 (base - strongly disagree) | 0.417** | -0.185 | 0.354 | -0.315 |
| The gap between rich and poor should be reduced 3 | 0.816*** | 0.581** | 0.698*** | 0.42 |
| The gap between rich and poor should be reduced 4 | 0.950*** | 0.496** | 0.809*** | 0.0988 |
| The gap between rich and poor should be reduces 5 | 0.837*** | 0.406* | 0.696*** | -0.000942 |
| Today is less corruption 2 (base -strongly disagree) | 0.126* | 0.0362 | 0.196** | -0.0345 |
| Today is less corruption 3 | 0.402*** | 0.356*** | 0.465*** | 0.144 |
| Today is less corruption 4 | 0.644*** | 0.469*** | 0.775*** | 0.323 |

Continued results of Logit Model

| | All without children | All with children | Head of household without children | Head of household with children |
|-------------------------------------|----------------------|-------------------|------------------------------------|---------------------------------|
| Human Capital | | | | |
| Individual controls | | | | |
| Gender | 0.141*** | 0.132* | 0.215*** | 0.129 |
| Age | -0.0305*** | -0.0411 | -0.0346** | -0.0407 |
| Age ² /100 | 0.0298*** | 0.0457 | 0.0330** | 0.0452 |
| Buddhist vs agnostic | 0.247 | 0.328 | -0.0491 | 0.392 |
| Jewish vs agnostic | 2.497*** | 0.896 | 3.114*** | 0.914 |
| Christian vs agnostic | -0.0837 | -0.289* | -0.0203 | -0.204 |
| Muslim vs agnostic | 0.102 | 0.0511 | 0.247 | 0.265 |
| Other vs agnostic | -0.276 | -0.259 | -0.262 | -0.301 |
| Rural vs urban | 0.00321 | -0.0373 | -0.0439 | 0.0181 |
| Metropolitan vs urban | 0.0105 | -0.239** | 0.0374 | -0.159 |
| Good health vs very good | -0.0712 | 0.00213 | 0.207 | 0.0742 |
| Medium health vs very good | -0.115 | -0.142 | 0.176 | 0.00757 |
| Bad health vs very good | -0.0659 | -0.132 | 0.237 | 0.0559 |
| Very bad health vs very good | 0.0303 | -0.513* | 0.395** | -0.471 |
| Consider oneself ethnic minority | 0.109 | -0.122 | 0.08 | -0.146 |
| Marriage status | | | -0.129 | -0.181 |
| Household size / number of children | 0.0372** | -0.0252 | 0.00844 | -0.00118 |
| Observations | 12254 | 6804 | 7035 | 3324 |
| Pseudo R2 | 0.3111 | 0.3388 | 0.3089 | 0.3588 |

*** p<0.01, ** p<0.05, * p<0.1