Relative Consumption, Social Exclusion, and Well-Being

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STATEMENT BY AUTHOR

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Abstract

One of the most interesting ideas in social science is the notion that individuals are motivated by concerns about their relative position. Using cross-sectional data from six transition countries, Kazakhstan, Moldova, Macedonia, Serbia, Tajikistan and Ukraine, I build on previous studies that have examined the relationship between relative position and well-being. The main novelty is that various hypotheses are tested: the importance of own consumption, the contribution of relative consumption, the relevance of social exclusion, and the marginal contribution of relative social exclusion. Most importantly, I examine the significance of "reference group" in the relationship between relative consumption and well-being. First, I begin by replicating the previous studies by testing the hypothesis that self-reported well-being (SWB) depends on relative income, with the distinction that I use relative consumption, which at a conceptual level affects well-being, rather than relative income. The result supports the relative income hypothesis. I also find evidence that relative consumption exerts a positive influence on SWB, a finding which lends support to Hirschman's "tunnel effect" conjecture. Second, I test whether households feel worse off when they are "socially excluded" in their reference group. I find that, accounting for a household's own consumption and relative consumption, socially excluded households are associated with lover levels of SWB. Third, I investigate whether households feel worse off when there is greater degree of social exclusion in their reference group, which I call the effect of "social solidarity," where individuals feel worse off when others around them are socially excluded. I find strong evidence for my conjecture. Finally, I examine the question of the relevant reference group, i.e. who belongs to the reference group of each household. Does it include all the households living in the same region, or district, or settlement, if the reference group is defined by geographical area? There is suggestive evidence that households compare themselves with others in their local as well as larger regions.

1. Introduction

People are the wealth of a nation¹ and everyone wants to pursue happiness, which is generally considered an ultimate goal of life.² According to the neoclassical economists, fully informed and rational individuals pursue to maximize their expected utilities. However, according to Mahbub ul Haq, the founder of the Human Development Report, people value not only consumable goods and services, but also value achievements that do not show up at all, or not immediately, in income or growth figures. For example, greater access to knowledge, better nutrition and health services, more secure livelihoods, security against crime and physical violence, satisfying leisure hours, political and cultural freedoms and sense of participation in community activities. The activities and abilities that reinforce human dignity and self-respect - what Adam Smith called the ability to mix with others without being 'ashamed to appear in public'.³ For example, people value employment not only because the income derived increases purchasing power, but also because it makes them feel as worthy members of society.

Then the goal of development is to increase people's choices such as political freedom, human rights and self-respect. The absence of public services (e.g. law enforcement) may increase vulnerabilities and limit people's choices. Authoritarian regimes can violate political and civil rights and impose restrictions on people's freedom to engage in the social, political and economic life of the community (Sen, 2000).

According to Sen, these restrictions might limit people's choices and, thus, their well-

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¹ Human Development Report: Concept and Measurement of Human Development, 1990.

² Aristotle defined happiness as the meaning and the purpose of life, the whole aim and end of human existence.

³ As quoted in Sen (2000).

being. However, everyone does not have the opportunities to engage in all that people value. Sometimes people find themselves socially excluded, characterized by their inability to gain the opportunities and resource necessary to participate in political processes, labor markets, social services, and cultural life activities of the society in which they live.

Social exclusion has relevance for well-being of individuals. Not only an individual's economic and non-economic circumstances determine his well-being, but also his relative position in the community (e.g. feelings of inferiority, alienation). One of the most interesting ideas in social science is the notion that individuals are motivated by concerns about their relative position. In economics, it dates back to classical economists such as Adam Smith (1759)⁴, Arthur Pigou (1920)⁵, and Duesenberry (1949)⁶. Classical economists view that in some extent relative position motivates individuals. However, mainstream utility theory states that individuals derive utility from their own consumption, U(C), rather than from a combination of own and relative consumption, $U(C, C/\bar{C})$. This has changed in recent years. There have been significant amount of empirical works, studying the relationship between well-being and relative position. For example, by using Canadian data, Tomes (1986) relates self-reported well-being (SWB) to own income and income in the local community. Also by using a self-reported measure of relative position, Graham and Pettinato (2002) find evidence in developing countries that well-being is influenced by relative income concerns. Using German

⁴ Adam Smith [1759], for example, wrote: "Nothing is so mortifying as to be obliged to expose our distress to the view of the public, and to feel, that though our situation is open to the eyes of all mankind, no mortal conceives for us the half of what we suffer. Nay, it is chiefly from this regard to the sentiments of mankind, that we pursue riches and avoid poverty."

⁵ Arthur Pigou [1920] approvingly quotes John Stuart Mill's observation that "men do not desire to be rich, but richer than other men."

⁶ Duesenberry (1949) empirically tested the impact of interdependent preferences on personal consumption and savings behavior.

Socio-Economic Panel, Ferrer-i-Carbonell (2005) find that, controlling for own income, SWB is decreasing in income of the reference group defined by Education X Age X Region cells where region is East or West Germany. Furthermore, using panel data for the US, Luttmer (2005) shows that relative income is a factor.

Luttmer (2005) and others (Dorn, Fischer, Kirchgässner, & Sousa-Poza, 2007; Ferrer-i-Carbonell, 2005; Clark & Oswald, 1996; Kingdon & Knight, 2007; Knight, Song, & Gunatilaka, 2009) extended classical economists' point of views by including a combination of individual's own income and relative income in the determination of well-being. According to them, the average income of the reference group negatively and significantly predicts different domains of well-being. For example, "if everybody were to drive expensive cars and living in luxury houses, one would feel unhappy with a cheaper car and simple house." However, there are some limitations. First, these studies examine the influence of relative income rather than relative consumption, which, at the conceptual level, affects utility or well-being. Second, Luttmer and other scholars considered only economic dimensions of relative position, and non-economic dimensions were neglected. People do not compare themselves with others only in terms of income. They also compare themselves in other aspects of life. There are at least 3 reasons for this: (i) Recent empirical works point to comparison effects in several life domains: health problems, labor market status, religiosity, and body shape; (ii) according to psychological studies, upward and downward comparisons are common and involve large number of human domains and outcomes; (iii) focusing on income comparisons may neglect other channels by which individuals may improve their command over resources, such as non-cash transfers from the government, and support from family and friends.

Based on the current studies, it can be concluded that studies focusing on non-income comparisons are lacking. Two exceptions are Bellani and D'Ambrosio (2011) and Cuesta and Budria (2012). Bellani and D'Ambrosio (2011) noted that well-being depends on negatively on composite index of non-monetary deprivations. As for Cuesta and Budria (2012), tried top distinguish their work by disaggregating the impacts of composite index and by driving equivalence scales between income and deprivation in other domains. However, these two studies still suffer from two limitations. First, like other studies they use income rather than consumption. Second, these studies are unable to show the contribution of non-economic deprivations after controlling for both own income and income in the reference group. For instance, Bellani and D'Ambrosio used mean of country income as reference income whereas Cuesta and Budria did not control for reference income.

Therefore, in this paper, I build upon previous studies by overcoming these limitations and extending the scope of analyses that have examined the relationship between relative position and well-being. The main novelty is that various hypotheses are tested: the importance of own consumption, the contribution of relative consumption, the relevance of social exclusion, and the marginal contribution of relative social exclusion. Most importantly, I examine the importance "reference group" in the relationship between relative consumption and well-being. First, I begin by replicating the previous studies by testing the hypothesis that self-reported well-being (SWB) depends on relative income, with the distinction that I use relative consumption, which at a conceptual level affects well-being, rather than relative income. The result supports the relative income hypothesis. I also find evidence that relative consumption exerts a positive influence on

SWB, a finding which lends support to Hirschman's "tunnel effect" conjecture. Second, I test whether households feel worse off when they are "socially excluded" in their reference group. I find that, accounting for a household's own consumption and relative consumption, socially excluded households are associated with lover levels of SWB. Third, I investigate whether households feel worse off when there is greater degree of social exclusion in their reference group, which I call the effect of "social solidarity," where individuals feel worse off when others around them are socially excluded. I find strong evidence for my conjecture. Finally, I examine the question of the relevant reference group, i.e. who belongs to the reference group of each household. Does it include all the households living in the same region, or district, or settlement, if the reference group is defined by geographical area? There is suggestive evidence that households compare themselves with others in their local as well as larger regions.

The remainder of the thesis is organized as follows. In Chapter 2 I briefly review the past studies on the empirical links between relative position and well-being. In Chapter 3, theory of relative concern is discussed. I present my empirical strategy in Chapter 4. Data is discussed in Chapter 5. The results are presented and discussed in Chapter 6. Finally, concluding remarks are provided in Chapter 7.

2. Previous Studies

Numerous scholars have attempted to identify determinants of self-reported well-being in the existing literature. Until 1990s, there was not rigorous analysis about the determinants of well-being. Prior to global measures of well-being such as happiness and life satisfaction, the empirical literature mostly started by considering job satisfaction, reflecting wages and labor market (Hamermesh, 1977). Since then, there have been various attempt to determine well being in terms of economic dimensions focusing on income and well-being and relative income and well-being. However, lately there is an increasing acceptance that the well being of an individual is not solely determined by their economic situations but also depends heavily on the relative social position in non-economic dimensions.

2.1. INCOME AND WELL-BEING

At the beginning of the 1970s, the relation between income and well-being has been one of the widely discussed and debated topics in the literature on well-being. According to utility theory, it is assumed that more is better and; therefore, individuals prefer or desire to increase their income. Most of the findings and insights presented by the well-being studies examined income and well-being correlation has come to the following conclusions.

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⁷ For detailed literature reviews, se, e.g., Frey and Stutzer (2002); Clark, Frijters, and Shields (2008); and Dolan, Peasgood, and White (2008). Dolan, Peasgood, and White (2008) thoroughly analyzed up to date research on subjective well-being. Based on the total of 153 papers on 19 major national and cross-national data sets that included measures of SWB, they highlighted the following seven interaction effects that have potential influences on well-being. These are (i) income; (ii) personal characteristics; (iii) socially developed characteristics; (iv) how people spend time; (v) attitudes and beliefs towards self/others/life; (vi) relationships; (vii) wider economic, social and political environment.

On the one side, various researchers provide evidence that countries with higher income have higher average levels of well-being as analyzed by Diener (1995); Inglehart (1990)), Frey and Stutzer (2002). According to them, individuals in richer countries, as well as richer individuals in one country, are slightly happier. The few micro-panel data studies report a positive effect of income on well-being including van Praag et al. (2003); and Ferrer-i-Carbonell and Frijters (2004). Moreover, some scholars found evidence that within each country at a given point in time; richer people are more satisfied with their lives. They are for example Easterlin (1995; 2001) for the US; Frey and Stutzer (2003) for Switzerland; Di Tella, MacCulloch, and Oswald (2001) and Blanchflower and Oswald (2004) for the member countries of the EU. In fact, these findings correlate with the utility theory premise of individuals' interests in obtaining as higher income as possible.

On the other side, the empirical evidence based on the majority of studies employing cross-section micro-empirical data finds a low correlation between income and well-being (see, e.g., Clark and Oswald (1994) for the UK; and Frey and Stutzer (2000) for Switzerland). Also, some studies such as Blachflower and Oswalds' (2004); Diener and Oishis' (2000); Myers and Dieners' (1995); Kenny's (1999); Lane's (1998); and Easterlin's (1974; 1995) confirm that income correlates only weakly with individual well-being. Thus, continuous income growth does not lead to happier individuals. Easterlin (1974; 1995; 2001) reveals that income and self-reported happiness are correlated positively across individuals within a country. However, he argues that life satisfaction increases with average incomes but at certain point. According to him, beyond a certain point the marginal gain in happiness declines. While real income per

capita increases twice the amount, happiness shows virtually no trend (from the General Social Survey). This phenomenon is referred to as "Easterlin Paradox." Not only this paradox was seen in US but also it was apparent in Japan and European countries as well. Some argue that once individual's income rises above "poverty line" or the main source of increased well-being is not income but instead friends and real family life (Lane, 2000). Thus, the studies imply that income is only partially relevant for well-being.

There are several different reasons and explanations why higher income does not directly translate into higher happiness. The first explanation of the Easterlin paradox depends on individual's perception or human behavior. Individual well-being also depends on the subjective perception of whether one's income is sufficient to fulfill one's needs. It means that the nature of economic competition gives individuals an incentive to make relative comparisons. Concern for relative position seems deep rooted in human behavior. According to Hopkins (2008) "rivalry story," "information story," and "perception story" might explain Easterlin paradox.

The second explanation of the Easterlin paradox relies on an adaptation particularly, to income. It is often argued that individuals get used to their new situations by changing their expectations (Helson, 1947) so, changes in income might have temporary effects. It implies that higher incomes correlate to the expectations that lead to

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⁸ This idea is to attempt to explain such relative concerns are arising from the financial incentives that arise in tournament-like situations. In other words, if life is a tournament where prizes are awarded to society winners, it would be logical to seek high social status as noted in Hopkins (2008).

⁹ Samuelson (2004) and Becker, L.R. (2007) explain that the unhappiness is life telling that the person is following the wrong strategy. If these others are having success, then maybe one should be doing it too. So this gives an incentive to gather useful information about potentially profitable activities.

¹⁰ This suggests that relative concerns arise because it is a fundamental to evaluate objects, opportunities or incomes by means of relative comparisons due to the standard utility theory that assumes preferences are complete.

"the hedonic treadmill" (Brickman & Campbell, 1971). Thus, individuals attempt to increase their incomes even if these bring temporary or small increase in well-being.

In summary, richer individuals in the country are only happier than their unfortunate individuals. Some scholars assert that income poorly relates with individual well-being so that constant increase in income does not lead to happier individuals. It can be inferred based on these evidences that income matters but also other factors may be more significant in explaining differences in individuals' well-being. Differences in income can partially explain the differences in happiness among persons, which indicates that other economic and noneconomic factors exert strong influences beyond the indirect consequences on income (Frey & Stutzer, 2002).

2.2. RELATIVE INCOME AND WELL-BEING

Perhaps the primary explanation of Easterlin paradox rests on the ways in which income translates into utility. According to Easterlin (1995), well-being varies directly with one's own income and non directly with the incomes of "others." In economics, the interrelation among individuals is explained in two ways. First, individuals concern the economic situation of their peers. Second, the consumption and behavior of individuals affected by decisions of other individuals in society (Hodgson (1988)). Studies have included relative income as one's relative position suggest well-being be strongly influenced by relative positions or individuals' relative concerns. It is often referred to as the "comparison income" or "relative utility" effect. The comparison income hypothesis suggests that the decline in relative income mean a decline in well-being. Several scholars including Luttmer (2005) and others (Dorn, Fischer, Kirchgässner, & Sousa-

Poza, 2007; Ferrer-i-Carbonell, 2005; Clark & Oswald, 1996; Kingdon & Knight, 2007; Knight, Song, & Gunatilaka, 2009) supported this concept. According to them, the average income of the reference group negatively and significantly predicts different domains of well-being. For example, "if everybody were to drive expensive cars and living in luxury houses, one would feel unhappy with a cheaper car and simple house." Thus, individual's happiness and welfare depend not only on the material achievements and income in absolute terms but also on one's relative position income wise. Following this line of thought, it is usually assumed that individual well-being depends on the individual's personal income as well as on the income of a reference group. The reference group comprises of members of a community or only a subgroup, such as individuals living in the same place or having the same education level.¹¹

The first economist to estimate subjective well-being equations using both income of own and income of others particularly "people like me" (comparison income) was Hamermesh (1977) and followed by Clark and Oswalds (1996); Sloane and Williams (2000); and Levy-Garboua and Montmarquette (2004). They estimated coefficients on income and comparison income in a job satisfaction and found a negative correlation between them. In fact, Clark and Oswald (1996) found evidence of the negative influence of others' income on an individual's personal job satisfaction. Thus, they analyze the comparison income effect on job-utility.

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¹¹ Current literature indicates that the reference group has two definitions. One is "people like me" as defined in Van de Stadt et al. (1985), Clark and Oswald (1996), McBride (2001), Ferrer-i-Carbonell (2005). The other is "people living in the same region, city, or country" as determined in Persky and Tam (1990), Easterlin (1995), Blanchflower and Oswald (2004), Lutmer (2005), Graham and Felton (2006), Helliwell and Huang (2005), Knight and Song (2009).

Some other scholars claim that there is a negative correlation between an individual's own well-being or welfare and others' incomes. For example, Kapteyn and van Herwaarden (1980), Kapteyn et al. (1978), Kapteyn et al. (1997), van Praag et al. (1979), and van de Stadt et al. (1985) present an empirical analysis of the importance for individuals' utility of their perception about where they are in the income distribution. They find that an individual utility depends negatively on the income of the reference group. They call this phenomenon the "reference drift effect." In terms of individual happiness, McBride (2001) presents an empirical analysis of the effect of an individual's personal income, past financial situation (whether they were better-off or worse-off than their own parents) and cohort (reference) income on individuals' well-being. His study, as in the present case, is based on self-reported happiness. McBride (2001) finds a negative correlation between well-being and the average income of the individual's cohort and the financial situation of the parents. In a nutshell, the higher the income of the peers, the less satisfied is the individual.

In addition, by using panel data from the U.S. National Survey of Families and Households, matched with local earnings data from Public Use Micro-data Areas, Luttmer (2005) explored the effects of inequality on welfare. He stated that there is a negative correlation with respondents' life satisfaction, conditional on their own income. His findings highlighted the importance of relative income differences as people assess the adequacy of their personal income compared to those around them. In other words, higher earnings of neighbors are associated with lower levels of self reported financial satisfaction. Following Luttmer, Graham and Felton (2006) across eighteen Latin

American countries; Helliwell and Haifang (2005) in Canada and Knight et al. (2009) in China replicated this finding and suggested that life satisfaction be relative in income.

These studies have shown that income is not the only factor that people consider when they compare themselves with others in the community. They also care about their relative positions in other domains (e.g. social services and participation in civic and social life and networks). As indicated, Luttmer and other scholars have taken only economic dimensions (consumption of own and relative consumption) into consideration. However, non-economic dimensions in terms of social position and relative social position matters in the deterimination of well-being.

2.3. RELATIVE SOCIAL POSITION AND WELL-BEING

In fact, the idea that people compare themselves with others has started earlier. Classical economists view that in some extent relative position motivates individuals (Luttmer, 2005). According to Fisher, introduction of the consumption of other individuals in individual utility is important to analyze. He argued that the purchase of precious stones such as diamond, for example, depends not only on the diamond itself but also on the position given to it by society at large (Stigler, 1950). Knight (1922) and Clark (1918) highlighted the interdependent nature of wants. Later Duesenberry (1949) empirically tested the impact of interdependent preferences on personal consumption and savings behavior. Leibenstein (1950) came to the conclusion that other factors related to the consumption of the good (nonfunctional demand)¹² might affect one's satisfaction.

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¹² The Greek philosophers (Georgescu-Roegen, 1968) described this concept with the distinction between intrinsic value and the subjective value. According to non-functional demand, individuals consume a good because a large proportion of the community also uses it. Thus, the good expresses the social belonging of an individual. This is known as the "Bandwagon effect".

Following Duesenberry, other recent studies¹³ find that others' consumption partly drive personal consumption. According to them, consumption decisions are viewed, as a result, of imitating others and pursuing social standards.

It can be inferred based on the interdependence of preferences that individual's happiness and satisfaction will depend on what one achieves in comparison with others. Since well-being of a person is intrinsically multidimensional, it is unlikely, however, that when people compare themselves with their societal peers rely solely on comparison income information and disregards other non-economical dimensions of life. Moreover, income is not significant per se but it should be a measure of an individual command over financial resources. People care not only about other's income, but also on their relative social position in a number of other domains, including economic status, access to social services, and political and cultural participations. For instance, "if person has a strong preference for social status, then a high-ranking person in an impoverished country could be happier than a low-ranked person in a rich country even if they have an equal pay."

In addition, there is an agreement among economists that income or related measures of income are substantially insufficient measures of well-being as it captures only economic domains of the quality of living or individual's well-being. Historically, well-being of people have been measured by the Human Development Index (HDI). However, some scholars including Rahman, Mittelhamer and Wandschneider (2011) argue that the HDI ignores other major domains such as contact with family, emotional well-being, work efficiency, safety, and the quality of the environment. Their studies

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¹³ Furthermore, interdependence of preferences was also analyzed by, among others, Frank (1985a), Kapteyn et al. (1978), and Hollander (2001). including Childers and Rao (1992), Bearden and Etzel (1982), Falk and Knell (2004), and Frank (1985b)

suggest that several other factors may effect individual's well-being such as (i) contact with family and friends; (ii) emotional well-being; (iii) health; (iv) work and productive activity; (v) material well-being; (vi) feeling part of one's local community; (vii) own safety; (viii) quality of environment.

With the Laeken European Council in December 2001 it was established that, apart from income, other indicators of quality of life of an individual are necessary to evaluate person's well-being. In fact, the shift from the concept of "poverty" to "social exclusion" reflects the need for a multidimensional approach to study social disadvantage. The evidence from the existing literature on well-being suggests that determinants or the factors that affect on individual's well-being be factors associated with social exclusion. In other words, different socio-economic factors that have been impacting on the well-beings of an individual are crucial to identify whether individuals have excluded socially or not.

Current literature review indicates that relationship between well-being and relative social position has not studied widely. Most of the available studies explain that relative position in terms of income matters in the determination of well-being (Clark & Oswald, 1996; Luttmer, 2005; Ferrer-i-Carbonell, 2005; Kingdon & Knight, 2007; Dorn, Fischer, Kirchgässner, & Sousa-Poza, 2007; Weinzierl, 2005; Clark, Frijters, & Shields, 2008). However, besides income people consider other elements when they compare themselves with others in the community. They also compare themselves in other aspects of life. There are at least 3 reasons for this. First, recent empirical works point to comparison effects in several life domains: health problems (Powdthavee, 2008) and labor market status (Clark et al. 2008), religiosity (Clark and Lelkes, 2009) and body

shape (Clark and Etile, 2011). Second, according to psychological studies, upward and downward comparisons are common and involve large number of human domains and outcomes (Lyubomirsky et al. 2001). Third, focusing on income comparisons may neglect other channels by which individuals may improve their command over resources, such as non-cash transfers from the government, and support from family and friends. Also people care about their relative positions in other domains (e.g. social services and participation in civic and social life and networks). Several scholars have explicitly addressed these issues by developing various indices for the measurement of phenomenon (Chakravarty & Conchita, 2006; Bossert, D'Abrosio, & Peragine, 2007; D'Ambrosio & Frick, 2007) in different life domains (Bellani & D'Ambrosio, 2011; Cuesta & Budria, 2012). However, it is still unclear how social position in other dimensions of life shape individual well-being. Thus, the relative position in non-economic dimension is an important in explaining differences in well-being and independent factor in households' well-being.

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¹⁴ Among the recent studies, Cuesta and Budria, (2012) made preliminary attempt to estimate the impact of individual's deprivation on subjective well being. Their work suggested that policies and practices and initiatives aimed at improving well-being require a better understanding of individuals' sensitiveness to others' income.

3. Theory of Relative Concern

Consider an individual i with consumption c_i who has utility of the form

$$U(c_i, c_{-i}) \tag{1}$$

where c_{-i} represents the consumptions of others, for example, given a population of n individuals it would be a vector $(c_1, \ldots, c_{i-1}, c_{i+1}, \ldots, c_n)$. However, the standard neoclassical assumption views that an individual's utility depends only on his or her own consumption.

It is assumed that one's own consumption c_i contributes positively to one's utility. In general, it is assumed that the effect of an increase in consumption of others richer than the individual is negative, which is called "envy" effect. However, there is no consensus on the effect of changes in consumption of those who are poorer. Some assume that any improvement for others, who relatively poorer has an adverse effect, which is called "pride" effect. However, others assume that an improvement for those below you has a positive effect, which is called "compassion" effect (Friedman & Ostrov, 2008).

Envy effect
$$\frac{\partial U(c_i, c_{-i})}{\partial c_j} < 0 \quad \text{for} \quad c_j > c_i$$

$$Pride \ effect \qquad \frac{\partial U(c_i, c_{-i})}{\partial c_j} < 0 \quad \text{for} \quad c_j < c_i$$

$$Compassion \ effect \qquad \frac{\partial U(c_i, c_{-i})}{\partial c_j} > 0 \quad \text{for} \quad c_j < c_i$$

The models of relative concerns with both pride and envy can be divided into two categories on the basis of functional form: (i) the mean-dependent models, often called the "keeping up with the Joneses", 15 (ii) the rank-based models. 16

The first group of models assume that utility is increasing in one's own absolute consumption c_i but there is also a relative component where one's personal consumption is compared with the average consumption of others \bar{c} . For instance:

$$U(c_i, c_{-i}) = U(c_i, c_i/\bar{c})$$
 (2)¹⁷

This specification produces a version of the Easterlin paradox. As well-being is increasing in own consumption c_i , it should be increasing in cross-section. However, well-being may not increase over time for any individual whose consumption rises no faster than average consumption. For example, if U is linear, there is no absolute component to utility, and the consumptions will increase at the same rate. However, average well-being will not rise. Further, if $U(\cdot)$ is concave then if the consumptions of the rich rise faster than those of the poor, then average well-being will fall. It is because the higher average consumption brings down the well-being of the poor, but the well-being of the rich increases only slowly because they are in the relative flat area of the concave utility function.

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¹⁵ As Clark and Oswald (1998) point out a model that is mean dependent may not imply a desire to "keep up" with others.

¹⁶ These models were pioneered by Layard (1980), Frank (1985b) and Robson (1992).

¹⁷ This formulation goes back to Duesenberry (1949) and has been used by many authors including Boskin and Sheshinski (1978), Abel (1990), Gali (1994), Harbaugh (1996), Clark and Oswald (1996, 1998) and Futagamia and Shibata (1998). An alternative formulation of $U(c_i, c_i - \bar{c})$ is also popular.

The second group of models assumes that utility takes the following form:

$$U(c_i, c_{-i}) = U(c_i, F(c_i))$$
 (3)

where c_i is one's own consumption and $F(\cdot)$ is a distribution of consumption $F(\cdot)$. One's utility or well-being is increasing in own consumption c_i but also in the rank $F(c_i)$ one holds in consumption. This formulation has pride in the sense that, if a group of persons who are currently richer than you had their consumptions reduced to a level below yours, your rank and hence your utility would increase.

This form of the utility function can also potentially explain the Easterlin paradox. For a fixed distribution of consumption, the utility of an individual is increasing in consumption c_i . In this case, both the direct effect $\partial U/\partial c_i$ and through the effect on rank $\partial U/\partial F \cdot f(c_i)$, where f(c) is the density of F(c), are positive. An increase in consumption for a single person, keeping other consumption constant, raises his rank. Thus, well-being would be increasing in cross-section. However, when society as a whole becomes richer, the average rank must remain constant.

In contrast to the above models, it is assumed that individuals have "compassion." The inequity aversion model of Fehr and Schmidt (1999) is perhaps the best known. It assumes that utility depends positively on one's own consumption, but negatively on the difference between one's own consumption and that of others. For an individual with consumption c_i comparing herself with n other people with consumption c_{-i} this has the simple form

$$U(c_i, c_{-i}) = c_i - \frac{\alpha}{n-1} \sum_{c_i > c_i} (c_j - c_i) - \frac{\beta}{n-1} \sum_{c_i < c_i} (c_i - c_j)$$
(4)

where α is a weight on the average of consumptions that are above yours and β is a weight on the average of consumptions below yours.

The model assumes that $\alpha \geq \beta$ and that β satisfies $1 > \beta \geq 0$. Given α is positive we have what we called *envy*, a dislike of others having more. If β is positive, then low consumptions for others reduce one's own utility, that is, there is *compassion*. However, if, contrary to the assumptions of the model, β were negative, then we have pride as then lower consumptions for others raise an individual's utility. The relation between the inequity aversion model and a mean-dependent model is as follows by using manipulation of Equation (4).

$$U(c_i, c_{-i}) = c_i - \beta(c_i - \bar{c}_{-i}) - \frac{\alpha + \beta}{n - 1} \sum_{c_j > c_i} (c_j - c_i)$$
(5)

where \bar{c}_{-i} is the average of c_{-i} , incomes held by others apart from individual i. One can see that if β is negative and equal to $-\alpha$, the inequity aversion model of Fehr and Schmidt (1999) model reduces to a mean-dependent model such as Equation (2). In other words, typical mean-dependent models are the particular case of the model of Fehr and Schmidt model where pride is as intense as envy, and there is no compassion.

Since its original formulation shown in Equation (4) is linear in own absolute consumption, it is less successful at explaining the Easterlin paradox.¹⁸ Therefore, we

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¹⁸ Suppose all consumptions are increased by the addition of c. Then, it is easy to calculate that the relative component of utility, the terms in α and β in Equation (4), will be unchanged, and consequently a

simply assume that the utility is strictly concave rather than linear in own absolute consumption.

$$U(c_i, c_{-i}) = u(c_i) - \frac{\alpha}{n-1} \sum_{c_j > c_i} (c_j - c_i) - \frac{\beta}{n-1} \sum_{c_j < c_i} (c_i - c_j)$$
(6)

where $u(\cdot)$ is an increasing but strictly concave function. Now, if the level of consumption is high enough, general increases in consumption will have less than one-for-one effect on average happiness. Specifically, it is easy to verify that the relative part of the above utility function (the terms in α and β) is unchanged if everyone's consumption increases by the same amount. So, again we have the familiar story that an increase in personal consumption keeping others' consumptions constant will have a greater effect than from raising all consumptions. Further, as the own consumption part of the utility function $u(\cdot)$ is concave, the effect of a general increase in consumption on utility could be quite small if consumptions are already large. That is; economic growth in rich countries would have a smaller effect on happiness than a similar increase in incomes in a poor country.

Models of social preferences can imply that an increase in inequality can have a direct negative effect on individuals who see no change in their own material circumstances. The Fehr–Schmidt model assumes a utility function in the form of Equation (4). The equivalent in a large population with consumption distribution $F(\cdot)$ is for the an individual to have utility

change in utility will be determined by the first term in the utility function (4) which is simply c_i . So, utility for each would rise by c, the same amount as the increase in consumptions. Thus, in contrast to the data on happiness, substantial rises in real consumption should lead to substantial increases in happiness.

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$$U(c_i, c_{-i}) = c_i - \alpha \int_{c_i}^{\infty} (t - c_i) dF(t) - \beta \int_{0}^{c_i} (c_i - t) dF(t) = c_i + S(c_i, c_{-i})$$
 (7)

Further, as Deaton (2003) notes, one can rewrite Equation (7) above as

$$U(c_{i}, c_{-i}) = c_{i} - \beta(c_{i} - \bar{c}) - (\alpha + \beta) \int_{c_{i}}^{\infty} (t - c_{i}) dF(t) = c_{i} - \beta(c_{i} - \bar{c}) - (\alpha + \beta)R(c_{i})$$
(8)

where again \bar{c} is an average income and $R(c_i) = \int_{c_i}^{\infty} (t - c_i) dF(t)$ is the measure of "relative deprivation" introduced by Yitzhaki (1979).

This implies that the Fehr–Schmidt model has the additional property that the utility can be increasing in the degree of equality. It shows that if there are two distributions F(c) and G(c) that have the same mean and the same support and if F is more equal in the sense of second-order stochastic dominance (equivalently generalised Lorenz dominance) then R(c) is lower at all consumption levels under F than under G. Thus, if as FS assume $\alpha > \beta$, then, even keeping her own consumption constant, an individual will have higher utility in a more equal society. With the Fehr–Schmidt model, it is possible for utility to fall at every level of consumption if consumption becomes less equally distributed around an unchanged mean. In summary, the Fehr–Schmidt model predicts a negative relation between happiness and inequality at a given level of own consumption. Further, this is something that is not present in rank based or mean-dependent models of relative concerns introduced earlier.

4. Empirical Strategy

4.1. RELATIVE CONSUMPTION AND WELL-BEING

The first specification we assume is that utility is increasing in one's own absolute consumption but there is also a relative component where one's personal consumption is compared with the average consumption of others, which is expressed by the following form:

Self-reported well-being =
$$f(own \ comsumption,$$

average consumption in locality, controls) (9)

A standard assumption in economics is that household consumption (or income) is positively related to well-being. In cross-section analysis, the income coefficient has been always found to be positive although not very large. Following the discussion Equations 2 and 3 the utility or individual well-being function is assumed to be concave in expenditure and, consequently, consumption and average consumption will be introduced in logarithmic forms.

The specification assumes that subjective well-being depends on only economic relative concerns of an individual, which is measured by the average consumption in locality. It is expected to have a negative correlation with individual well-being. In other words, the higher the consumption of the reference group, the less satisfied individuals are with their own expenditure. We define the reference consumption as the average household consumption of the individuals who belong to the same reference group or those who live in the same community, which we call it "locality." The empirical studies

on subjective well-being have found a negative coefficient on the average consumption of the reference group¹⁹, which we expect as well.

Consistently with previous works on this topic, a list of socio-demographic variables will be used as control variables such as sex, age (age squared), marital status, education, number of persons living in the household etc.²⁰

4.2. RELATIVE CONSUMPTION, SOCIAL EXCLUSION, AND WELL-BEING

The next specification assumes that well-being depends on the non-economic relative concerns of an individual in addition to economic relative concerns. One's utility or well-being is increasing not only in own consumption but also in the social status one holds in the community. It can be inferred based on the interdependence of preferences that individual's well-being and satisfaction will depend on what one achieves in comparison with others. Since well-being of a person is intrinsically multidimensional, it is unlikely, however, that people rely solely on comparison income information and disregard other non-economical dimensions of life when comparing themselves with their societal peers. Income is not significant per se, but it should be a measure of an individual command over financial resources. People care not only about other's income in the community, but also on their relative social position in a number of other domains, including economic status, access to social services, and political and cultural participations. If a group of persons has higher social status (more socially integrated) than you, then your satisfaction with life would be lower than theirs. The following

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¹⁹ See, e.g., Clark and Oswald (1996); Kapteyn and van Herwaarden (1980); Kapteyn et al. (1997); McBride (2001); and Luttmer (2005).

²⁰ Full list of control variables is presented in the next chapter.

specification is analyzed to examine if lower social status is correlated with lower wellbeing:

Self-reported well-being = $f(own \ comsumption, \ average \ consumption \ in$ locality, social exclusion, controls) (10)

A binary indicator on individual's status of being "socially excluded" is used as a proxy variable for one's social status (rank) in the locality, particularly, state of being "socially disadvantaged" (next chapter discusses the construction of this variable). We expect that "socially excluded" people are less satisfied with their lives than others, controlling for consumption and other factors. For instance, "if person has a strong preference for social status, then a high-ranking person in an impoverished country could be happier than a low-ranked person in a rich country even if they have an equal pay." It indicates that the lack of opportunities for participation in economic, social and civic processes affects individual's well-being negatively.

As discussed in the previous section, the utility of an individual is increasing in consumption, as both through the direct effect and through the effect on social status, where consumption can have a positive impact on one's social status. An increase in consumption for a single person, keeping other factors constant, raises one's social status. However, not only economic but also non-economic factors determine invidual's social status or rank in the community. So, when society as a whole becomes richer, keeping non-economic factors constant, everyone's social rank may not change.

4.3. REFERENCE GROUP AND WELL-BEING

Current literature indicates that the reference group has two definitions. One is "people like me" as defined in Van de Stadt et al. (1985), Clark and Oswald (1996), McBride (2001), Ferrer-i-Carbonell (2005). The other is "people living in the same region, city, or country" as determined in Persky and Tam (1990), Easterlin (1995), Blanchflower and Oswald (2004), Lutmer (2005), Graham and Felton (2006), Helliwell and Huang (2005), Knight and Song (2009). For example, Easterlin (1995) implicitly assumes that individuals compare themselves with all the other citizens of the same country. Persky and Tam (1990) assume that all individuals living in the same area are part of the same reference group. Luttmer (2005) also takes a geographic approach to reference groups, and calculates average income by local area (Public Use Micro Area) in the U.S. Knight et al. (2009) analyzed cross-sectional information of 9200 households in China and confirmed that 70 percent of individuals indeed see their village as their reference group.

Following Luttmer (2005) and Knight et al. (2009), the reference groups are defined as those living in the same community or neighborhood or local area. The reference group contains all the individuals living in the (i) same region; (ii) same district; and (iii) same settlement type (village, a small town, regional or economic center and capital). Then, will examine the first two specification with alternative definitions of the reference groups.

Self-reported well-being = $f(own \ comsumption; \ average \ consumption \ in$ locality, where locality is alternatively defined; controls) (0.1)

4.4. RELATIVE CONSUMPTION, SOCIAL EXCLUSION, RELATIVE SOCIAL

EXCLUSION AND WELL-BEING

On the basis of Fehr–Schmidt model prediction, the last specification hypothesizes that there is a negative relation between well-being and inequality at a given level of household consumption (or income). According to the Fehr–Schmidt model, utility can be increasing in the degree of equality. In other words, there is a negative relation between well-being and inequality at a given level of own consumption. Keeping her own consumption constant, an individual will have higher utility in a more equal society. The following specification is analysed to investigate the relationship between the incidence and the intensity of social exclusion in locality and well-being.

Self-reported well-being = $f(own \ comsumption; \ average \ consumption \ in$ locality, social exclusion; relative social position; controls) (11)

The adjusted headcount ratio, or Multidimensional Social Exclusion Index (see the next chapter for the construction of the index) is used to measure one's relative social position in the locality. If the majority of people are excluded socially in the locality, then they might feel sad. The reason they feel sad is that people care not only about their happiness, but also they wish others to be happy.

4.5. Instrument for Own Consumption

The empirical results suggest positive but provide diminishing returns to consumption or expenditure. It means higher consumption does not necessarily make people happier. Instead, it means that happier people earn higher income, e.g., because they might have a passion for working harder, or they might have tended to spend much

and might have more active social life (Frey & Stutzer, 2002). The empirical results suggest that the positive relation between well-being and consumption (or income) is likely to be due to reserve causation²¹ or unobserved individual characteristics, such as personality factors.²²

In order to address the concerns about reserve causation and unobserved individual characteristics driving the result, household consumption was instrumented. The predicted household consumption is on the respondent's *industry* × *occupation* composition of the locality at a point in time if the respondent is employed or based on the household head's job status at a point in time if the respondent is unemployed. These variables are not likely to influence well-being directly, but indirectly through household consumption. To predict household consumption, we regress log of household consumption on a full set of industry and occupation dummies interacted with employment dummy, a complete set of job status dummies of household's head interacted with employment dummy, and all control variables (See Table 45 for the results from the first stage estimation).

Rather than actual household consumption, a predicted measure of household consumption is used. All specifications will be estimated to address the concern of reserve causation and unobserved individual characteristics.

²¹ Some studies show that higher well-being leads to higher incomes in the future (Diener, Lucas, Oishi, & Suh, 2002; Graham, Eggers, & Sukhtankar, 2004; Marks & Flemming, 1999; Schyns, 2001),

²² Some studies find a reduced income effect after controlling for personal effects (Ferrer-i-Carbonell & Frijters, 2004; Luttmer, 2005).

5. DATA

The data on subjective well-being as well as the indicators of the social exclusion are used from the Social Exclusion Survey (SES).²³ The survey generated a data set on the magnitude and determinants of social exclusion based on the hypothesis that the social exclusion results from inequalities in access to economic resources, education and employment, as well as in access to social services, social networks, and political, cultural and civic participation. The survey was taken in 2009 and carried out in six countries: Kazakhstan, Serbia, the Republic of Moldova, Tajikistan, the former Yugoslav Republic of Macedonia, and Ukraine.

The unit of observation was the individual. In each country, 2,700 interviews were conducted. Households within the selected route were chosen interviews are allowed in each route. Households within the selected route were chosen interviews are allowed in each route. Households within the selected route were chosen

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²³ The questionnaire, the raw survey dataset, the technical report, the frequency report and focus group reports are in the following link: http://europeandcis.undp.org/poverty/socialinclusion. The questionnaire that was for face-to-face interviews comprised 136 questions reflecting 500 variables. Questionnaire was identical in all the surveyed countries (adjusted to accommodate the different currencies). It is available in a number of local languages (Serbian, Macedonian, Albanian, Moldovan, Ukrainian, Kazakh, Tajik and Russian).

²⁴ In Serbia, 3,001 interviews were made (2,401 with members of the general population, plus two boosters with 300 Roma, and 300 internally displaced persons (IDPs), which was not available).

by using random route method.²⁵ Also, the nearest birthday method²⁶ was used for selecting respondents in each household (Table 1).

5.1. MEASURING WELL-BEING

The main dependent variable is self-reported well-being (SWB)²⁷, which is the answer to the question: "Are you satisfied or dissatisfied with your standard of living?". The answer to this question takes discrete values from 1 to 5 and will be referred to as subjective well-being. Respondents answer on a 5-point scale where 1 is defined as "Completely Dissatisfied," 2 is defined as "Dissatisfied," 3 is defined as "Neither satisfied nor dissatisfied," 4 is defined as "Satisfied," and 5 is defined as "Completely Satisfied."²⁸ Figure 1 shows the distribution of responses to this question from the main respondents in the whole sample. The average SWB across individuals and over countries

²⁵ Households within the selected primary sampling unit (route) were selected by using random route method with a statistical level. Interviews were given starting points for each course, and the direction in which to move. Following the direction, households were selected by pre-determined step factor, according to the instructions.

²⁶ Only one person who qualifies the following criteria is availabe for an interview. These are (i) age 15 and over, (ii) participation approval, (iii) the closest date of birthday to the date of interview among all the members of the family, if in the household were more than one person of 15 years and over.

²⁷ The analysis of satisfaction with life or happiness also referred to as, subjective well-being (SWB), is relatively new but rapidly growing topic for economists. In short, it refers to how people experience and evaluate their lives and specific domains and activities in their lives (Stone & Mackie, 2013) and it is often used by psychologists to find out how we think and feel about our lives (Diener, Suh, Lucas, & Smith, Subjective Well-being: Three Decades of Progress., 1999). According to Frey and Stutzer (2003) this approximation permits a direct analysis of what people really value. The measurement of utility has made great progress based on the extensive work by numerous psychologists (Diener, Suh, Lucas, & Smith, Subjective Well-being: Three Decades of Progress., 1999; Kahnemann, Diener, & Schwarz, Well-Being: The Foundations of Hedonic Psychology, 1999; Kahneman & Krueger, Developments in the Measurement of Subjective Well-Being, 2006). With the help of a single question, or several questions on global selfreports, it is possible to get indications of individuals' evaluation of their life satisfaction or happiness. Economists who have worked with happiness or subjective well-being data all agree with importance of happiness data in economic analysis for several reasons. Frey and Stutzer (2002) in their work highlighted several important reasons why happiness is of relevance to economists in terms of providing information on economic policy decisions, measuring effects of institutional conditions, understanding the formation of subjective well-being and helping to find solution on some paradoxes. Gruber and Mullainathan (2005) inferred that by using subjective well-being data economists would be able to directly assess the impacts of public policy on well-being. According to Kimball and Willis (2006), happiness data provides significant information about preferences that is appropriate subject for economic policy analysis.

28 The variable is reverse coded in the analyses.

is 3.04 (s.d. = 1.04). Well-being answers are skewed; individuals tend to be either "neither satisfied nor dissatisfied" or "satisfied" with their lives, with almost 31.52% of the sample reporting a SWB score below 3 and only 5.8% reporting 5.

Table 2 shows the distribution of the responses in the six countries. Except Serbia and Ukraine, more than one-third the population were either "satisfied" or "completely satisfied" with their standard of living. However, "neither satisfied nor dissatisfied" was the most frequent satisfaction assessment in Moldova, Macedonia, and Serbia while "satisfied" is the most frequent in Kazakhstan and Tajikistan. Nevertheless, some considerable differences between countries can be observed; for example, 10.6% of the Kazakhstanian "completely satisfied" with their standard of living, whereas this figure is as low as 2.3% for Ukraine and 3.9% for Serbia.

5.2. MEASURING SOCIAL EXCLUSION

We employ the social exclusion measure presented in the regional human development report (UNDP, 2011) that captures social exclusion along various dimensions in a single, methodologically robust figure.²⁹ The measure has two components. First, *the social exclusion headcount*, which is the percentage of people facing a number of deprivations above a certain threshold (the share of people who are identified "socially excluded"). Second, *the multidimensional social exclusion index*, which is the headcount weighted by the intensity of exclusion (the average number of deprivations each socially excluded household experiences).

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²⁹ The methodology uses the Alkire and Foster (2011) methodology of multidimensional poverty monitoring which has been applied to 104 countries in the 2010 UNDP Human Development Report. The measure has been adapted to account for the diversity of the Europe and Central Asia region.

The deprivations are expressed in terms of 24 indicators – eight indicators for each of the three dimensions of social exclusion: (i) exclusion from economic life; (ii) social services; and (iii) civic and social participation (Table 3).³⁰ Each of the three dimensions of social exclusion has equal weight, as does each indicator.

In the first dimension – economic exclusion – indicators reflect deprivation in incomes and basic needs; employment, financial services and material assets; amenities that households need but cannot afford, and dwelling size. Economic exclusion marginalizes individuals in the distribution of financial resources. From a human development perspective, this hinders the development of people's capabilities, which help them to satisfy their needs and exercise their rights, enabling them to make choices to attain the living standards and quality of life that they value. Economic exclusion limits people's access to the labor, financial and housing markets, as well as to goods and services. It leads not only to income poverty, but also to reduced access to services such as education, health care and social insurance – ultimately resulting in a loss of capabilities.

The second dimension – exclusion from social services – encompasses education and health services, as well as public services.

The third dimension – exclusion from civic and social life—covers deprivation in political, cultural and social networks, as well as reflects diminished opportunities for

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³⁰ The indicators were selected based on the analysis of the three dimensions of exclusion, informed by findings from focus group discussions, from national consultations, as well as from relevant international literature. For example, indicators have been selected (and in some cases modified) from EU surveys, the European Quality of Life survey, social capital studies and the 'missing dimensions of poverty' surveys piloted by the Oxford Poverty and Human Development Initiative. Robustness checks have been carried out to ensure that the individual indicators are not correlated, and that each indicator is relevant for explaining social exclusion in the six surveyed countries (UNDP, 2011).

social and civic participation. The indicators chosen for this social exclusion measure are objective: they indicate status, rather than perceptions.

The identification of "socially excluded" person has two steps. First, we need to determine whether a person is deprived in the single indicator as presented in Table 3.

Being deprived means households need such items but can't afford them. All deprivation indicators are dummy variables defined as follows:

$$d_{j} = \begin{cases} 1, & \text{if a person is deprived in the individual indicator } j \\ 0, & \text{otherwise} \end{cases}$$
 (5.1)

Second, a person is identified as "socially excluded" by counting the number of indicators across the three dimensions in which he or she is deprived.

$$SE_{i} = \begin{cases} 1, & if \sum_{j=1}^{24} d_{j} > k \\ 0, & otherwise \end{cases}$$
 (5.2)

where SE_i is a dummy for a person who is considered "socially excluded" and $k \in \{0, 1, 2, ..., 24\}$ is the cut-off value. It is a variable used in the specification 2, 3 and 4. Setting k reflects a judgement regarding the maximally acceptable multiplicity of deprivations. A person with a greater multiplicity of deprivations is given higher priority than someone with only one or two deprivations. According to Alkire and Foster (2011), the choice of k could be a normative one, reflecting the minimum deprivation count required to be considered "socially excluded" in a particular context under consideration. The choice of the cut-off value could also be chosen to reflect specific policy goals and priorities. Taking into account all these considerations, the cut-off k at the level of 9 was

chosen for the social exclusion index, which is close to 3 deprivations per dimension.³¹ There are two main reasons behind this choice of threshold. One is to apply a conservative threshold that does not inflate the multiple deprivation headcounts. Nine indicators also reflect the minimum number that is necessary for an individual to be socially excluded in more than one dimension, since one dimension contains only eight indicators. "Being excluded" means "facing an unacceptable number of deprivations," rather than "belonging to a minority isolated from the majority." Table 4 and Table 5 contain summary statistics for these indicators.

The social exclusion index is built using the 24 indicators. Three measures were constructed: First, the social exclusion headcount ratio (SEHR) is defined as the share of people who are deprived in at least k indicators for any given k (in this report k = 9). It indicates the incidence of social exclusion.

$$SEHR_{jc} = \frac{1}{n_{jc}} \sum_{i}^{n_{jc}} SE_i \tag{5.3}$$

where $SEHR_{ic}$ is the social exclusion headcount ratio and n_{ic} is the number of people in the area i in the country c.

Second, the average deprivation share across the "socially excluded" (ADS) is calculated as the average number of deprivations divided by the maximum possible number of deprivations (24 in our case). The average deprivation share indicates the fraction of possible indicators in which the average 'socially excluded' person endures

³¹ See UNDP (2011) for the details of the selection thresholds and robustness checks of indicators for the social exclusion index.

deprivation. In other words, it provides additional information on the intensity of social exclusion.

$$ADS_{jc} = \frac{1}{24} \left(\frac{1}{m_{jc}} \sum_{i}^{m_{jc}} \left(\sum_{j}^{24} d_{j} \right) \right) \quad if \ SE_{i} = 1$$
 (5.4)

where ADS_{jc} is average deprivation share of the 'socially excluded' and m_{jc} is the number of the 'socially excluded' in the area j in the country c.

Third, the adjusted headcount ratio, or Multidimensional Social Exclusion Index, MSEI, are calculated to solve the issue of violation of a 'strict dimensional monotonicity'. The adjusted headcount ratio, MSEI combines information on the incidence of social exclusion and the average intensity of a socially excluded person's deprivation. As a simple product of the two partial indices $SEHR_{jc}$ and ADS_{jc} , the measure $MSEI_{jc}$ is sensitive both to the incidence and the intensity of social exclusion.

$$MSEI_{jc} = SEHR_{jc} \cdot ADS_{jc} \tag{5.5}$$

Thus, the $MSEI_{jc}$ measure satisfies the property of dimensional monotonicity: if a "socially excluded" person becomes deprived in an additional indicator, ADS_{jc} rises and so does $MSEI_{jc}$. All three multidimensional social exclusion measures were calculated on the basis of household members.

Table 6 captures social exclusion in terms of headcount, and intensity. It also presents the multidimensional Social Exclusion Index, which integrates the headcount and intensity of social exclusion. The data show that more than one out of three persons

in the region is socially excluded, with a wide range of variation across countries. Social exclusion in Tajikistan is the most acute, with 64.2 percent of the population found to experience nine or more deprivations. While the share of people considered to be socially excluded varies significantly across the six countries, the intensity of their exclusion is found to be quite similar despite variations among countries in terms of population size, GDP and human development levels. The intensity of social exclusion ranges from 47 percent in Kazakhstan and Ukraine and (where socially excluded people face on average about 11 deprivations out of 24) to 49 percent in Moldova, Serbia, and Tajikistan (where socially excluded people face on average about 12 deprivations out of 24).

The Social Exclusion Index can be disaggregated by dimension, which provides information about the contribution of each dimension to the overall social exclusion index. It creates opportunities for policy makers to see the composition of social exclusion in their area of interest. The data clearly indicate that economic factors alone do not determine social exclusion. In five out of six countries all three dimensions contribute roughly equally, while access to social services contributes slightly more than the other two. It reinforces the message that in order to tackle social exclusion, all three dimensions must be addressed equally: focusing solely on poverty reduction or economic inclusion is not sufficient.

5.3. OTHER DETERMINANTS OF WELL-BEING

The set of variables that influence individual's subjective well-being has been discussed in the economic and psychological literature (see, e.g., Frey & Stutzer, 2002; Dolan, Peasgood, & White, 2008). In the present study, the decision of which variables

have to be included is based on the literature and data availability. A fairly extensive body of literature has found consistent links between subjective well-being and a number of demographic and socioeconomic variables. These include income or household consumption, gender, age, age-squared, marital status, race or ethnicity, education, household size, religion and country- or region-specific variables. These variables have fairly consistent effects on well-being across societies and across time in both the developed and developing economies for which there is data and chosen to make clear comparison with the previous studies.³² Table 7 contain detailed definitions and Table 8 (for pooled sample of all countries) and Table 9 (by-country sub-samples) present summary statistics for these control variables including social exclusion index and as well as the dependent variable, subjective well-being.

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³² For detailed literature reviews, se, e.g., Frey and Stutzer (2002); Clark, Frijters, and Shields (2008); and Dolan, Peasgood, and White (2008). Dolan, Peasgood, and White (2008) thoroughly analyzed up to date literature on subjective well-being. Based on the total of 153 papers on 19 major national and cross-national data sets that included measures of SWB, they highlighted the following seven interaction effects that have potential influences on well-being: (i) income; (ii) personal characteristics; (iii) socially developed characteristics; (iv) how people spend time; (v) attitudes and beliefs towards self/others/life; (vi) relationships; (vii) wider economic, social and political environment.

6. RESULTS

6.1. RELATIVE CONSUMPTION AND WELL-BEING

We first estimate, as a baseline model, Equation 4.1 including only household consumption and all the contributing factors, mentioned in the previous section, to make a clear comparison with the specification with average household consumption in locality, which controls for the relative consumption effect on subjective well-being. All models specifications are estimated on the pooled sample of six countries (Table 10) and by-country sub-samples (Table 11-16) with self-reported well-being as the dependent variable using the ordered probit model.

Table 10-16 present ordered probit models estimating the determinants of self-reported well-being. The first two columns provide results of the necessary specifications containing the variables that are commonly used in the determinants of self-reported well-being except for average household consumption in locality whereas Column 3 and 4 provide results of the specification with average household consumption in locality as a reference consumption. Columns 1 and 3 include a set of region dummy variables to show the relationships that hold within regions and to control region-specific fixed effects, which also capture time-invariant individual characteristics. In column 5 and 6, we show the same specifications as those in 1 and 3 respectively expect that household consumption is instrumented by the predicted household consumption to address the concern about reserve causation and unobserved individual characteristics driving the result. The prediction is based on the respondent's industry × occupation composition of

the locality at a point in time if the respondent is employed or based on the household head's job status at a point in time if the respondent is unemployed.

In line with many empirical findings in the literature, the results suggest that wellbeing is significantly associated with household consumption as well as household wealth, labor market status, age, ethnicity, marital status, education, household size, and religion. The results are fairly robust to model specifications (see Table 10-16). The discussion focuses on the household consumption coefficients. The coefficients of the other variables do not present surprises for the connoisseur of the subjective well-being literature (Dolan, Peasgood, & White, 2008).

As we expected, the results for the first, most simple, specification, in which only household consumption and the control variables without average household consumption are included, is presented in Column 1 and 2 of Table 10. It shows that the household consumption coefficient is significant and positively related to self-reported well-being for the pooled sample and all 6 by-country sub-samples, i.e. Kazakhstan, Moldova, Macedonia, Serbia, Tajikistan, and Ukraine. 33 In the simple ordered probit regressions, both pooled and by country, the level of household consumption is always significantly positively correlated with well-being while the effect of it varies by country. This result is in accordance with the usual findings: namely, that richer individuals are, ceteris paribus, happier than poorer ones.

The individual relative position has a significant and positive impact on wellbeing, besides the level of household consumption. The relative position is measured by

³³ See the first rows of Table 11-16 for by-country results.

the average household consumption in the locality, where locality is defined as a settlement. Column 3 and 4 of Table 10-11 presents the results for the specification in the form of Equation 4.1, in which, besides household consumption, the average consumption in the locality (or of the reference group) is introduced to the model. The inclusion of the average household consumption in locality does not change the household consumption coefficient significantly, suggesting that our previous findings hold for this specification as well. As we expected, there is always negative, and statistically significant coefficient of average household consumption (see the second row of Table 10). In the by-country regressions, the level of the average consumption in locality is mostly negatively correlated with well-being, while the effect and significance of it vary by country (see the second row of Table 11-16). For the most part, both household consumption coefficients are very similar (e.g. Macedonia, Serbia, and Tajikistan). For the pooled sample of six countries, the coefficient of the average household consumption in locality is higher than the coefficient of the household's own consumption. The results imply that if all individuals of the same neighbors enjoy the same magnitude increase in their household consumption, then their well-being is unlikely to change.

Our estimated coefficients on the variables of absolute and average household expenditure are consistent with the idea that well-being is a positive function of consumption and a negative function of aspirations. For example, aspirations tend to be governed by the standards and norms of the community or in the locality. This makes a person's relative position in the community relevant to his or her well-being. Thus, aspirations adjust to the income of the community, so creating a "hedonic treadmill"

which makes self-reported well-being insensitive to absolute consumption while being sensitive to relative consumption.

Comparing the results with actual household consumption in Column 1 and 3 of Table 10 and the results with the predicted household consumption in Column 5 and 6 of the same table, the estimated coefficients on the variables are fairly similar except for that on the household consumption variables. The coefficient on actual household consumption was consistently positive and significant, ranging from 0.157 to 0.177. With the predicted household consumption, the coefficient is always significant and positive, ranging from 0.458 to 0.505. Instrumenting yields an estimated effect of predicted household consumption on self-reported well-being that is about three times as large as the estimate in the specification with actual household consumption. It is expected that the coefficient on actual household consumption to be biased upwards. In other words, happier people earn a higher income because they like to work harder and are more productive. Also, unobserved characteristics such as active social networks (like spending time with friends or colleagues) or ability might raise both household consumption and well-being. However, the higher impact of predicted household consumption suggests that there are some characteristics which increase household consumption, but decrease subjective well-being, or that instrumenting corrects for an error in the measurement of household consumption, so reducing downward attenuation bias. It is notable that this finding of downward bias is not unique (Luttmer, 2005; Knight, Song, & Gunatilaka, 2009).

6.2. RELATIVE CONSUMPTION, SOCIAL EXCLUSION, AND WELL-BEING

The next specification (Equation 4.2) hypothesizes that self-reported well-being depends on the non-economic relative concerns of an individual in addition to economic relative concerns. Particularly, it is aimed to empirically investigate the independent role of social exclusion (or status of being "socially excluded") in the determination of self-reported well-being.

Table 17-23 explore the relationship between the state of being "socially excluded" and self-reported well-being and present the results of ordered probit models estimating the determinants of self-reported well-being with the introduction of the variable "socially excluded." The organization of the tables is the same as the previous table. Column 1, 2, and 5 replicate the baseline regression in the form of Equation 4.1 (same as in Column 3, 4 and 6 of Table 10-11). Other columns show regressions that are identical to the baseline regression, except that the dummy variable for the status of being "socially excluded" are added as a control variable for relative position in non-economic dimensions.

More relevant for our research question is a comparison between the specifications with just relative consumption (Equation 4.1) and the specification with not only relative consumption, but also social exclusion (Equation 4.2), where an alternative measure of relative position is considered. If the hypothesis that individual's relative position measured by only consumption (or income) and the one proxied by status of being "socially excluded" (the multidimensional concepts of deprivation) are not capturing the same phenomenon holds, we would expect that even after the introduction

of a variable for non-economic relative position as a control, both household consumption and average household consumption in locality remain significantly correlated with self-reported well-being. As shown in Column 3, 4, and 6 of Table 17-23, in addition to relative consumption (household consumption and average household expenditure in locality), being "socially excluded" has a highly significant and negative impact on self-reported well-being. The result is strongly robust to all specifications and it suggests that controlling for other factors including household consumption and economic relative position, "socially excluded" people are less satisfied with their lives than those who are not. In other words, having lack of opportunities for participation in economic, social and civic processes strongly affects individual's well-being. It supports the idea that economic positions do not determine people's comparison to neighbors, colleagues, or more to a reference group but also by non-economic areas such as exclusion from social services and civic and social life. Also, it reinforces the idea of the importance of incorporating the multi-dimensionality in measuring individual well-being.

After comparisin of the results from the specification in the form of Equation 4.1 with the results from the specification in the form of Equation 4.2, the estimated coefficients show small differences on the variables. The only exception was for few variables including household consumption, unemployed, not in the labor force and education. Since unemployment is one of the deprivation indicators, being unemployed has both direct and indirect impact on individual's well-being. Moreover, the impact on well-being of being "socially excluded" is higher than on those who are unemployed, which suggests that being unemployed leads not only to income poverty, but also to

reduced access to services such as education, health care and social insurance – ultimately resulting in a loss of capabilities.

Substituting the actual household consumption with the predicted household expenditure hardly change the effect of being "socially excluded" on self-reported well-being. The results show that persistence in the state of being "socially excluded" are negatively associated with self-reported well-being. It has greater effects than any other determinants. Interestingly, the impact of average household consumption is weakened by the introduction of the social exclusion variable. It implies that relative consumption does not seem to have a strong association with self-reported well-being when one's social status measure based on the multidimensional concepts of deprivation indicators are introduced as a control variable.

6.3. REFERENCE GROUP AND WELL-BEING

We evaluated the impacts of relative consumption and social exclusion in three different specifications, which vary in terms of the reference group. Particularly, average household consumption is calculated in three different localities: (i) region, (ii) district, and (ii) settlement type. The results are shown in Table 24-37.

Surprisingly, the impact of average household consumption in the locality on self-reported well-being increases in magnitude as the scope of the locality decreases. When the reference group is defined as all individuals in the same area, the average household consumption of the region has a negative impact on the self-reported well-beings of those who live in that region, but the result is often not statistically significant. However, the impact is highly significant and negative when the locality is defined as district or

settlement. There is a slightly higher impact for settlement than for district, which suggests that relative household expenditure within settlement (village, or small town, or regional center, or capital) might be more important for individuals when they make comparison with others. For the pooled sample, the point estimates indicate that the self-reported well-being of an individual declines faster with an increase in average consumption in settlement or district than with an increase in average consumption in the region (Table 24 and 31). This result is consistent with the findings that the reference group is likely to be determined by information sets and by social interactions and most rural people confine their reference groups to the village: their orbits of comparison are narrow (Knight, Song, & Gunatilaka, 2009).

6.4. RELATIVE SOCIAL EXCLUSION AND WELL-BEING

Status of being "socially excluded" is not purely relative concepts because one's being "social excluded" does not affect other's status of being "socially excluded." Instead, it can be interpreted as that an individual "facing an unacceptable number of deprivations" or "not having things that others have" or "not being part of society – not socially integrated" or "socially disadvantaged." In this sense, if someone is socially disadvantaged, it does not have to influence others' well-being directly. However, there can be an indirect effect through the head count of those who are "socially excluded" in the community (incidence) or through the intensity of social exclusion.

As discussed in the data section, the adjusted headcount ratio, (or Multidimensional Social Exclusion Index), combines information on the incidence of social exclusion and the average intensity of "socially excluded" person's deprivation.

This measure is sensitive both to the incidence and the intensity of social exclusion. If a "socially excluded" person becomes deprived in an additional indicator, intensity of social exclusion rises and so does the adjusted headcount ratio. This index is a proxy for relative social position (or inequality) in the community.

The prediction derived from the Fehr–Schmidt model hypothesizes that there is a negative relation between well-being and inequality at a given level of household consumption. We analyzed hypothesis from Table 38 through 44. Column 1 and 2 replicate the baseline regression in the form of Equation 4.1 and the specification with social exclusion respectively and Column 3 show regressions that are identical to Equation 4.2, except that the multidimensional social exclusion index is a proxy for relative social position in the locality.

The estimated coefficients on relative social position are consistently negative and statistically significant. The result that individual's well-being will be decreasing with the degree of the incidence and the intensity of social exclusion. In other words, there is a negative relation between well-being and inequality. It can be measured by the multidimensional social exclusion index. Control for one's consumption, relative consumption, and social status, an individual will have lower utility in the community, where many people are "socially excluded" or those who are "socially disadvantaged."

7. CONCLUSIONS

This this presents an empirical test of hypotheses about the importance of relative position in terms of non-economic dimension in the determination of well-being. The empirical analysis has taken national representative household survey data on Social Exclusion to explore the relationship between the relative position and well-being in six transition countries: Kazakhstan, Moldova, Macedonia, Serbia, Tajikistan, and Ukraine. The estimation results confirm previous research by showing that not only relative position in the economic dimension but also the relative position in non-economic dimension is strongly significant in the determination of well-being.

However, the relevance of the present study lies in four features. First, it contributes to the current literature that the relative position in non-economic dimension is an important and independent factor in households' well-being. Rather than taking only economic dimension into consideration like most of the previous scholars did, we took non-economic dimensions into consideration. We identify whether an individual is being "socially excluded" or not as a proxy measure for one's social status in the locality or a measure of "socially disadvantaged" person. Our contribution has been to provide a new outlook of the determination of well-being. Second, it differs from other studies, as it investigates the determination of self-reported well-being in six transition countries since most of the self-reported well-being studies were applied to developed countries and neglected transition and developing countries. Third, we tested the impact of alternatively defined reference groups/localities on self-reported well-being. Finally, we measure

household's relative social position in the community by constructing a multidimensional index of social exclusion.

The main conclusions are as follows: (i) The paper finds that well-being is significantly associated with household consumption as well as the other control variables including household wealth, labor market status, age, ethnicity, marital status, education, household size, and religion. The study provides strong evidence that the richer family is, keeping others constant, happier than poorer ones. In other words, the household consumption is strongly and positively associated with self-reported wellbeing in the surveyed countries: Kazakhstan, Moldova, Macedonia, Serbia, Tajikistan, and Ukraine. However, the results imply that if all individuals of the same neighbors enjoy the same magnitude increase in their household expenditure, then their well-being is not expected to change; (ii) A person's status of being "socially disadvantaged" or "socially excluded" is critical and independent factor in his or her well-being. The finding is very robust to all specifications, which suggests that controlling for other factors including household consumption and economic relative position, those who are "socially excluded" are less satisfied with their lives than those who are not. People's comparison to the reference group is not only determined by their economic positions but also by non-economic positions. It also reinforces the idea of the importance of incorporating the multi-dimensionality in measuring individual well-being; (iii) The result shows that people likely to compare themselves with their immediate neighbors. Smaller the reference groups are, higher the relative comparisons are. (iv) Having lack of opportunities for participation in economic, social and civic processes strongly affect individual's well-being both directly and indirectly.

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Table 1. Distribution of respondents by country*

KZH	MLD	FYRM	SER	TJK	UKR	Total
1,316	1,145	1,284	1,209	1,164	1,196	7,314
(49%)	(42%)	48%	50%	43%	44%	46%
1,384	1,555	1,416	1,192	1,536	1,504	8,587
(51%)	(58%)	52%	50%	57%	56%	54%
2,700	2,700	2,700	2,401	2,700	2,700	15,901
14	4	8	6	5	11	48
193	675	338	450	540	245	331
161	33	41	25	69	26	355
17	82	66	108	39	104	45
302	116	119	300	348	110	1295
9	23	23	9	8	25	12
4	4	4	4	4	4	4
40	8	10	6	17	7	11
450	450	485	400	450	450	2685
6	6	6	6	6	6	6
	1,316 (49%) 1,384 (51%) 2,700 14 193 161 17 302 9 4 40 450	1,316	1,316 1,145 1,284 (49%) (42%) 48% 1,384 1,555 1,416 (51%) (58%) 52% 2,700 2,700 2,700 14 4 8 193 675 338 161 33 41 17 82 66 302 116 119 9 23 23 4 4 4 40 8 10 450 450 485	1,316 1,145 1,284 1,209 (49%) (42%) 48% 50% 1,384 1,555 1,416 1,192 (51%) (58%) 52% 50% 2,700 2,700 2,700 2,401 14 4 8 6 193 675 338 450 161 33 41 25 17 82 66 108 302 116 119 300 9 23 23 9 4 4 4 4 40 8 10 6 450 450 485 400	1,316 1,145 1,284 1,209 1,164 (49%) (42%) 48% 50% 43% 1,384 1,555 1,416 1,192 1,536 (51%) (58%) 52% 50% 57% 2,700 2,700 2,401 2,700 14 4 8 6 5 193 675 338 450 540 161 33 41 25 69 17 82 66 108 39 302 116 119 300 348 9 23 23 9 8 4 4 4 4 4 40 8 10 6 17 450 450 485 400 450	1,316 1,145 1,284 1,209 1,164 1,196 (49%) (42%) 48% 50% 43% 44% 1,384 1,555 1,416 1,192 1,536 1,504 (51%) (58%) 52% 50% 57% 56% 2,700 2,700 2,401 2,700 2,700 14 4 8 6 5 11 193 675 338 450 540 245 161 33 41 25 69 26 17 82 66 108 39 104 302 116 119 300 348 110 9 23 23 9 8 25 4 4 4 4 4 4 40 8 10 6 17 7 450 450 485 400 450 450

Note: KZH=Kazakhstan, MLD=Moldova, FYRM=Macedonia, SER=Serbia, TJK=Tajikistan, and UKR=Ukraine. (*) There are four different settlements: village, small towns, regional or economic center, and capital.

Figure 1. Distribution of self-reported well-being

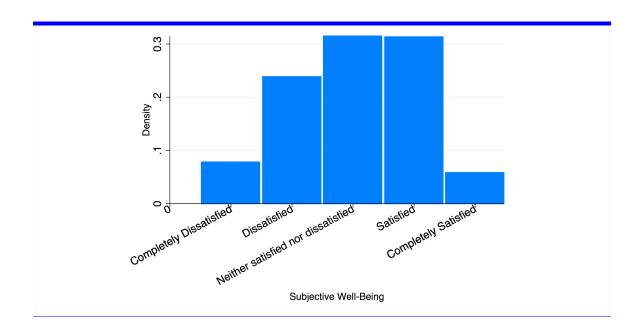


Table 2. Self-reported well-being across countries

Country	Completely Dissatisfied	Dissatisfied	Neither satisfied nor	Satisfied	Completely Satisfied	Mean	S.D.	N
V 11 .	4.0	22.2	dissatisfied	20.2	0.2	2.22	1.04	2600
Kazakhstan	4.8	22.2	26.4	38.3	8.3	3.23	1.04	2689
Moldova	6.7	22.7	36.3	29.2	5.2	3.03	1.00	2696
Macedonia	6.6	22.5	36.4	30.4	4.1	3.03	0.98	2679
Serbia	12.6	30.0	31.3	22.2	3.9	2.75	1.06	2393
Tajikistan	3.2	12.0	29.9	44.3	10.6	3.47	0.95	2684
Ukraine	13.0	34.1	28.5	22.1	2.3	2.67	1.03	2684
TOTAL	7.7	23.8	31.5	31.3	5.8	3.04	1.04	15825

All figures are in percentage.

Table 3. Indicators of social exclusion

Variable	Definition
Economic Exclusion	
At risk of income poverty	1 if per-capita household expenditure is less than 60 percent of median equivalent expenditures in the country, 0 otherwise. (<i>Inequality</i>)
Unmet basic needs	1 if in the past 12 months the household has not been able to afford three meals a day, or pay bills regularly, or keep the home adequately warm, or buy new clothes and shoes, 0 otherwise.
Unemployment	1 if person is unemployed or a discouraged worker, 0 otherwise.
Financial services	1 if person has a lack of access to a bank account on one's own name, 0 otherwise.
Housing	1 if household cannot afford a bed for every member of the household, 0 otherwise <i>(material deprivation)</i>
Amenitie	1 if household needs a washing machine, freezer or microwave but cannot afford one, 0 otherwise. (material deprivation)
ICT	1 if household needs a computer or internet but cannot afford one, 0 otherwise. (material deprivation)
Overcrowding	1 if household's accommodation is less than 6m2 per person, 0 otherwise. <i>(material deprivation)</i>
Exclusion from Social Services	
Water	1 if household has no running water or sewerage system, 0 otherwise. (public utilities)
Heating	1 if household heats with wood or with no heating device, 0 otherwise. (public utilities)
Low education	1 if person has low educational achievements (basic schooling) or early school leavers, 0 otherwise. (education)
School materials	1 if household could not afford to buy school materials for every child in the past 12 months, 0 otherwise (education)
School drop out	1 if household has young children not in school or pre-school, 0 otherwise. (education)
Medication	1 if household could not afford medication or dental checks for every child in the past 12 months, 0 otherwise. <i>(health care)</i>
Health care	1 if household's medical needs not being met by the health care system, 0 otherwise (health care)
Transportation	1 if person has lack of opportunities to attend events due to distance, 0 otherwise. (lack of transportation or social infrastructure)
Exclusion from Participation in Ci	vic & Social life and Networks
Social ties with family	1 if person has rare or infrequent social contact with family or relatives, 0 otherwise. (social capital)
Social ties with friends	1 if person has rare social contact with friends, 0 otherwise. (social capital)
Support network	1 if person has lack of support networks that could help in the event of emergency, 0 otherwise. (social capital)
Social participation (private)	1 if in the past 12 months the household has not been able to afford inviting friends or family for a meal or drink at least once a month, 0 otherwise. (social participation)
Social participation (culture)	1 if the household has not been able to afford to buy books, cinema or theatre tickets in the past 12 months, 0 otherwise. (social participation)
Political participation	1 if person has inability to vote due to lack of eligibility or distance to polling station, 0 otherwise. (civic participation)
Social participation (clubs)	1 if person has no participation/membership in associations, teams or clubs, 0 otherwise. (civic participation)
Civic participation	1 if person has no participation in political/civic activities, 0 otherwise. <i>(civic participation)</i>

Table 4. Summary statistics of indicators of social exclusion across countries

Indicator	Obs*	Mean	Std. Dev.	Min	Max
Economic Exclusion	11552	2.00	1.55	0.00	8.00
At risk of income poverty	14174	0.30	0.46	0.00	1.00
Unmet basic needs	15483	0.10	0.30	0.00	1.00
Unemployment	15236	0.13	0.33	0.00	1.00
Financial services	15704	0.65	0.48	0.00	1.00
Housing	15824	0.14	0.34	0.00	1.00
Amenities	15705	0.38	0.48	0.00	1.00
ICT	15620	0.38	0.49	0.00	1.00
Overcrowding	13828	0.03	0.17	0.00	1.00
Exclusion from Social Services	10172	2.65	1.68	0.00	8.00
Water	15829	0.43	0.50	0.00	1.00
Heating	15826	0.38	0.49	0.00	1.00
Low education	15901	0.23	0.42	0.00	1.00
School materials	12041	0.31	0.46	0.00	1.00
School drop out	15901	0.06	0.24	0.00	1.00
Medication	13160	0.27	0.44	0.00	1.00
Health care	13906	0.52	0.50	0.00	1.00
Transportation	15719	0.40	0.49	0.00	1.00
Exclusion from Participation in Civic					
& Social life and Networks	12106	2.39	1.30	0.00	8.00
Social ties with family	15808	0.10	0.30	0.00	1.00
Social ties with friends	14693	0.05	0.23	0.00	1.00
Support network	15007	0.18	0.39	0.00	1.00
Social participation (private)	15564	0.12	0.32	0.00	1.00
Social participation (culture)	15259	0.49	0.50	0.00	1.00
Political participation	14668	0.03	0.17	0.00	1.00
Social participation (clubs)	15725	0.60	0.49	0.00	1.00
Civic participation	15710	0.86	0.35	0.00	1.00
"Socially Excluded"	6239	0.24	0.43	0.00	1.00

Note: Information was collected on the level of the household or respondent only, the respondent's answers were assumed to be valid for all household members. Other characteristics (age group, gender, education) were available for all household members. Respondents with missed observations on the 24 indicators were excluded. The final dataset for the construction of the multidimensional Social Exclusion Index therefore includes in total 6239 respondents, who represent 23166 household members.

Table 5. Summary statistics of indicators of social exclusion by country

	K	azakhsta	ın		Moldova	ı	Macedonia		
Indicator	N	Mean	STD	N	Mean	STD	N	Mean	STD
Economic Exclusion	2223	2.10	1.30	2103	2.33	1.35	1912	1.13	1.26
At risk of income poverty	2517	0.31	0.46	2568	0.31	0.46	2392	0.35	0.48
Unmet basic needs	2640	0.06	0.24	2665	0.12	0.32	2663	0.03	0.17
Unemployment	2679	0.10	0.30	2673	0.09	0.29	2440	0.23	0.42
Financial services	2673	0.77	0.42	2677	0.82	0.38	2637	0.31	0.46
Housing	2683	0.07	0.25	2691	0.07	0.26	2694	0.02	0.15
Amenities	2654	0.36	0.48	2670	0.48	0.50	2667	0.14	0.35
ICT	2634	0.45	0.50	2684	0.43	0.50	2664	0.14	0.34
Overcrowding	2486	0.02	0.15	2281	0.01	0.12	2434	0.00	0.07
Exclusion from Social Services	1732	2.47	1.51	1807	3.15	1.78	1522	1.89	1.43
Water	2698	0.57	0.50	2696	0.53	0.50	2680	0.15	0.35
Heating	2694	0.08	0.27	2693	0.51	0.50	2688	0.64	0.48
Low education	2700	0.18	0.39	2700	0.29	0.46	2700	0.19	0.39
School materials	2084	0.34	0.48	1954	0.35	0.48	1733	0.18	0.38
School drop out	2700	0.10	0.29	2700	0.03	0.16	2700	0.02	0.13
Medication	2289	0.27	0.44	2073	0.26	0.44	2138	0.09	0.29
Health care	2225	0.47	0.50	2586	0.63	0.48	2419	0.33	0.47
Transportation	2679	0.44	0.50	2692	0.49	0.50	2642	0.26	0.44
Exclusion from Participation in Civic &									
Social life and Networks	2117	2.68	1.19	1840	2.51	1.42	2205	1.97	1.24
Social ties with family	2679	0.08	0.26	2696	0.21	0.41	2683	0.06	0.24
Social ties with friends	2583	0.05	0.22	2071	0.09	0.29	2651	0.01	0.11
Support network	2580	0.25	0.43	2636	0.20	0.40	2511	0.11	0.32
Social participation (private)	2640	0.09	0.28	2670	0.13	0.34	2657	0.08	0.27
Social participation (culture)	2528	0.52	0.50	2656	0.53	0.50	2580	0.41	0.49
Political participation	2492	0.02	0.14	2528	0.03	0.17	2586	0.01	0.11
Social participation (clubs)	2663	0.75	0.44	2690	0.59	0.49	2665	0.52	0.50
Civic participation	2668	0.92	0.27	2697	0.85	0.36	2649	0.80	0.40
"Socially Excluded"	1251	0.23	0.42	988	0.33	0.47	974	0.09	0.29

Table 5. Summary statistics of indicators of social exclusion, by country (Cont.)

		Serbia]	Γajikista	n		;	
Indicators	N	Mean	STD	N	Mean	STD	N	Mean	STD
Economic Exclusion	1760	1.22	1.41	1581	3.77	1.28	1973	1.69	1.23
At risk of income poverty	2047	0.24	0.43	2157	0.27	0.45	2493	0.30	0.46
Unmet basic needs	2314	0.15	0.36	2587	0.15	0.36	2614	0.10	0.29
Unemployment	2297	0.16	0.37	2510	0.14	0.34	2637	0.07	0.25
Financial services	2378	0.37	0.48	2672	0.97	0.17	2667	0.65	0.48
Housing	2391	0.02	0.14	2675	0.60	0.49	2690	0.01	0.11
Amenities	2363	0.17	0.37	2682	0.82	0.39	2669	0.27	0.44
ICT	2356	0.21	0.40	2661	0.73	0.45	2621	0.33	0.47
Overcrowding	2215	0.00	0.05	2135	0.14	0.35	2277	0.01	0.08
Exclusion from Social Services	1442	2.20	1.62	1856	3.58	1.56	1813	2.35	1.50
Water	2379	0.22	0.42	2682	0.78	0.41	2694	0.32	0.47
Heating	2392	0.46	0.50	2665	0.55	0.50	2694	0.05	0.22
Low education	2401	0.23	0.42	2700	0.34	0.48	2700	0.12	0.32
School materials	1674	0.39	0.49	2580	0.18	0.39	2016	0.42	0.49
School drop out	2401	0.03	0.17	2700	0.18	0.39	2700	0.03	0.16
Medication	1957	0.18	0.38	2624	0.40	0.49	2079	0.36	0.48
Health care	2129	0.40	0.49	2025	0.68	0.47	2522	0.63	0.48
Transportation	2374	0.32	0.47	2658	0.45	0.50	2674	0.44	0.50
Exclusion from Participation in Civic &									
Social life and Networks	2000	2.07	1.17	1863	2.65	1.22	2081	2.52	1.39
Social ties with family	2383	0.10	0.30	2684	0.05	0.22	2683	0.11	0.31
Social ties with friends	2342	0.01	0.11	2537	0.07	0.26	2509	0.09	0.29
Support network	2278	0.17	0.38	2477	0.12	0.33	2525	0.24	0.43
Social participation (private)	2358	0.04	0.20	2620	0.23	0.42	2619	0.13	0.34
Social participation (culture)	2305	0.44	0.50	2595	0.64	0.48	2595	0.39	0.49
Political participation	2257	0.02	0.13	2286	0.05	0.22	2519	0.05	0.21
Social participation (clubs)	2371	0.43	0.50	2674	0.63	0.48	2662	0.68	0.47
Civic participation	2384	0.88	0.32	2625	0.84	0.37	2687	0.86	0.34
"Socially Excluded"	994	0.11	0.32	849	0.58	0.49	1183	0.19	0.39

Table 6. Level of Social Exclusion, by Country

	KZH	MLD	FYRM	SER	TJK	UKR
		Magnitu	ıde of Soci	al Exclus	ion	
Social exclusion headcount, SEHR, (%) Average number of deprivations	23	30	8	10	64	15
among the socially excluded (intensity) Average share of deprivations, ADS, (intensity)	11	12	12	12	12	11
(the number of deprivations as a percentage of the 24)	47	49	48	49	49	47
Social Exclusion Index (SEHR)*(ADS)	11	15	4	5	32	7
	Contribution	on of Dime	ensions to t	he Social	Exclusion	n Index
Economic exclusion	30	30	24	22	37	26
Exclusion from social services	35	39	37	40	37	36
Exclusion from participation in civic and social life and networks	35	31	39	38	25	38

KZH=Kazakhstan, MLD=Moldova, FYRM=Macedonia, SER=Serbia, TJK=Tajikistan, and UKR=Ukraine. The table is constructed based on the 23166 household members.

Table 7. Characteristics of the households

Characteristics	Definition
Self-reported well-being	The answer to the question: Are you satisfied or dissatisfied with your standard of living? where 5 is defined as Completely Satisfied, 4 is defined as Satisfied, 3 is defined as Neither satisfied nor dissatisfied, 2 is defined as Dissatisfied, 1 is defined as Completely Dissatisfied.
Socially Excluded	Dummy for being socially excluded: 1 if respondent is deprived in at least nine indicators out of the selected 24 indicators, 0 otherwise.
In Household consumption	Log of respondent's actual household expenditure (PPP adjusted). Answer to the question "How much money did your household spend last month in total [local currency]?"
In Mean consumption in locality	Log of average of household expenditures in the locality or the reference group. The locality or the reference is defined as same country; region; distric; and settlement. There are four types of settlement: village; small town; regional or economic center; and capital.
House owner	Dummy for owning one's house: 1 if respondent's household owns the house (with or without mortgage), 0 otherwise.
Land owner	Dummy for owning one's land: 1 if respondent's household owns land, 0 otherwise.
Unemployed	Unemployment dummy: 1 if respondent, during the last month, did not work for payment at least for one day and were registered with the employment services, 0 otherwise.
Not in the labor force	Dummy for those neither currently employed nor unemployed: 1 if respondent is not employed and is not looking for work during the past 4 weeks, 0 otherwise.
Gender	Gender dummy: 1 if respondent is female, 0 otherwise.
Age	Age of respondent at the time of survey (in years).
Age Squared /100	Age in years squared and divided by 100.
Ethnicity in Settlement (<10% [10-20%; 20-40%; 60-80%; >80%])	Ethnicity dummy: 1 if percentage of the respondent's ethnic group in the settlement is less than 10% [between 10-20%; between 20-40%; between 60-80%; greater than 80%], 0 otherwise.
Marital Status	Marrital status dummy: 1 for those either married or not married but living with a partner, 0 otherwise. If divorsed, widowed, single or not living with a partner, those are coded into the neither married nor cohabiting category.
Education	Years of completed education at the time of the interview (in years).
In Household size	Log of number of people in the household.
Religion: Orthodox [Catholic; Islam; Atheist; Other]	Religion dummy: 1 if respondent is an Orthodox [is a Catholic; is a Muslim; has no religion; has other religion or missing or n.a.], 0 otherwise.
Settlement type: village [small town; regional or economic center; capital]	Settlement dummy: 1 if settlement type is village [small town; regional or economic center; capital], 0 otherwise.
In population in settlement	Log of population in settlement.
Country: Kazakhstan [Moldova; Macedonia; Serbia; Tajikistan; Ukraine]	Country dummy: 1 if country is Kazakhstan [Moldova; Macedonia; Serbia; Tajikistan; Ukraine], 0 otherwise.

Table 8. Summary characteristics of the households across countries

Characteristics	N	Mean	STD	Min	Max
Self-reported well-being	15825	3.04	1.04	1.00	5.00
Socially Excluded	6239	0.24	0.43	0.00	1.00
In Household consumption (actual)	14157	6.23	0.92	2.76	10.13
In Mean consumption (country)	15901	6.60	0.34	6.13	7.01
In Mean consumption (region)	15901	6.60	0.37	5.74	7.26
In Mean consumption (district)	15900	6.56	0.49	4.83	8.13
In Mean consumption (village)	7698	6.37	0.55	4.70	8.40
In Mean consumption (small town)	3042	6.64	0.50	3.97	7.54
In Mean consumption (regional center)	3144	6.68	0.44	4.37	7.73
In Mean consumption (capital)	2011	6.83	0.35	5.80	7.33
House owner	15901	0.90	0.30	0.00	1.00
Land owner	15901	0.57	0.50	0.00	1.00
Unemployed	15236	0.12	0.32	0.00	1.00
Not in the labor force	15901	0.40	0.49	0.00	1.00
Gender	15901	0.54	0.50	0.00	1.00
Age	15901	42.24	17.38	15.00	105.00
Age squared	15901	20.86	16.15	2.25	110.25
Ethnicity in Settlement (<10%)	15901	0.06	0.23	0.00	1.00
Ethnicity in Settlement (10-20%)	15901	0.04	0.19	0.00	1.00
Ethnicity in Settlement (20-40%)	15901	0.07	0.25	0.00	1.00
Ethnicity in Settlement (40-60%)	15901	0.15	0.35	0.00	1.00
Ethnicity in Settlement (60-80%)	15901	0.16	0.37	0.00	1.00
Ethnicity in Settlement (>80%)	15901	0.52	0.50	0.00	1.00
Marital Status	15901	0.59	0.49	0.00	1.00
Education	15901	11.81	3.11	0.00	35.00
ln Household size	15901	1.13	0.56	0.00	2.30
Religion: Orthodox	15901	0.59	0.49	0.00	1.00
Religion: Catholic	15901	0.07	0.26	0.00	1.00
Religion: Islam	15901	0.27	0.44	0.00	1.00
Religion: Atheist	15901	0.04	0.20	0.00	1.00
Religion: Other	15901	0.03	0.17	0.00	1.00
Settlement type: Village	15901	0.48	0.50	0.00	1.00
Settlement type: Small town	15901	0.19	0.39	0.00	1.00
Settlement type: Regional or economic center	15901	0.20	0.40	0.00	1.00
Settlement type: Capital	15901	0.13	0.33	0.00	1.00
In population in settlement	15901	9.80	2.31	6.21	14.22

Table 9. Summary characteristics of the households, by country

	K	Kazakhsta	ın		Moldova		N	Macedonia		
Characteristics	N	Mean	STD	N	Mean	STD	N	Mean	STD	
Self-reported well-being	2689	3.23	1.04	2696	3.03	1.00	2679	3.03	0.98	
Socially Excluded	1251	0.23	0.42	988	0.33	0.47	974	0.09	0.29	
In Household consumption (actual)	2512	5.87	0.73	2568	5.81	0.95	2391	6.71	0.80	
In Mean consumption (country)	2700	6.13	0.00	2700	6.27	0.00	2700	6.97	0.00	
In Mean consumption (region)	2700	6.12	0.21	2700	6.26	0.10	2700	6.97	0.10	
In Mean consumption (district)	2700	6.07	0.38	2700	6.25	0.22	2699	6.94	0.31	
In Mean consumption (village)	1403	5.91	0.38	1621	6.08	0.23	824	6.83	0.41	
In Mean consumption (small town)	410	6.02	0.48	82	6.28	0.15	617	6.84	0.42	
In Mean consumption (regional center)	765	6.31	0.29	506	6.41	0.41	643	7.05	0.16	
In Mean consumption (capital)	122	6.47	0.07	491	6.47	0.00	615	7.02	0.20	
House owner	2700	0.92	0.28	2700	0.91	0.29	2700	0.83	0.38	
Land owner	2700	0.56	0.50	2700	0.74	0.44	2700	0.48	0.50	
Unemployed	2679	0.08	0.27	2673	0.07	0.26	2440	0.22	0.41	
Not in the labor force	2700	0.41	0.49	2700	0.48	0.50	2700	0.29	0.45	
Gender	2700	0.51	0.50	2700	0.58	0.49	2700	0.52	0.50	
Age	2700	42.43	17.14	2700	43.24	18.04	2700	42.99	16.73	
Age squared	2700	20.94	16.01	2700	21.95	16.69	2700	21.28	15.76	
Ethnicity in Settlement (<10%)	2700	0.09	0.29	2700	0.04	0.19	2700	0.04	0.20	
Ethnicity in Settlement (10-20%)	2700	0.10	0.30	2700	0.05	0.23	2700	0.00	0.02	
Ethnicity in Settlement (20-40%)	2700	0.21	0.41	2700	0.03	0.16	2700	0.05	0.22	
Ethnicity in Settlement (40-60%)	2700	0.22	0.41	2700	0.07	0.26	2700	0.14	0.35	
Ethnicity in Settlement (60-80%)	2700	0.15	0.36	2700	0.23	0.42	2700	0.04	0.19	
Ethnicity in Settlement (>80%)	2700	0.23	0.42	2700	0.58	0.49	2700	0.67	0.47	
Marital Status	2700	0.55	0.50	2700	0.58	0.49	2700	0.63	0.48	
Education	2700	12.10	2.92	2700	11.37	3.20	2700	12.40	3.46	
ln Household size	2700	1.07	0.59	2700	0.90	0.51	2700	1.19	0.46	
Religion: Orthodox	2700	0.33	0.47	2700	0.94	0.23	2700	0.71	0.45	
Religion: Catholic	2700	0.00	0.07	2700	0.03	0.18	2700	0.23	0.42	
Religion: Islam	2700	0.58	0.49	2700	0.00	0.04	2700	0.00	0.00	
Religion: Atheist	2700	0.07	0.25	2700	0.01	0.10	2700	0.00	0.06	
Religion: Other	2700	0.02	0.12	2700	0.01	0.11	2700	0.06	0.24	
Settlement type: Village	2700	0.52	0.50	2700	0.60	0.49	2700	0.31	0.46	
Settlement type: Small town	2700	0.15	0.36	2700	0.03	0.17	2700	0.23	0.42	
Settlement type: Regional center	2700	0.28	0.45	2700	0.19	0.39	2700	0.24	0.43	
Settlement type: Capital	2700	0.05	0.21	2700	0.18	0.39	2700	0.23	0.42	
In population in settlement	2700	10.08	2.54	2700	9.52	2.20	2700	9.70	1.32	

Table 9. Summary characteristics of the households, by country (Conti.)

		Serbia		,	Tajikista	n		Ukraine	;
Characteristics	N	Mean	STD	N	Mean	STD	N	Mean	STD
Self-reported well-being	2393	2.75	1.06	2684	3.47	0.95	2684	2.67	1.03
Socially Excluded	994	0.11	0.32	849	0.58	0.49	1183	0.19	0.39
In Household consumption (actual)	2047	6.77	0.73	2148	5.96	0.87	2491	6.36	0.90
In Mean consumption (country)	2401	7.01	0.00	2700	6.51	0.00	2700	6.78	0.00
In Mean consumption (region)	2401	7.00	0.15	2700	6.50	0.18	2700	6.76	0.19
In Mean consumption (district)	2401	7.00	0.21	2700	6.40	0.54	2700	6.75	0.25
In Mean consumption (village)	1137	6.87	0.24	1873	6.37	0.63	840	6.52	0.47
In Mean consumption (small town)	534	6.98	0.20	379	6.31	0.67	1020	6.74	0.27
In Mean consumption (regional center)	358	7.06	0.20	194	6.29	0.22	678	6.85	0.35
In Mean consumption (capital)	372	7.28	0.00	249	6.51	0.27	162	6.97	0.00
House owner	2401	0.86	0.34	2700	0.94	0.25	2700	0.94	0.23
Land owner	2401	0.51	0.50	2700	0.57	0.50	2700	0.55	0.50
Unemployed	2297	0.16	0.36	2510	0.12	0.32	2637	0.06	0.23
Not in the labor force	2401	0.29	0.46	2700	0.48	0.50	2700	0.45	0.50
Gender	2401	0.50	0.50	2700	0.57	0.50	2700	0.56	0.50
Age	2401	43.52	16.40	2700	36.33	15.73	2700	45.07	18.64
Age squared	2401	21.62	15.58	2700	15.67	13.57	2700	23.79	17.79
Ethnicity in Settlement (<10%)	2401	0.04	0.21	2700	0.09	0.29	2700	0.03	0.17
Ethnicity in Settlement (10-20%)	2401	0.01	0.12	2700	0.04	0.19	2700	0.02	0.15
Ethnicity in Settlement (20-40%)	2401	0.04	0.20	2700	0.06	0.23	2700	0.03	0.17
Ethnicity in Settlement (40-60%)	2401	0.06	0.24	2700	0.11	0.32	2700	0.26	0.44
Ethnicity in Settlement (60-80%)	2401	0.10	0.30	2700	0.23	0.42	2700	0.21	0.41
Ethnicity in Settlement (>80%)	2401	0.74	0.44	2700	0.47	0.50	2700	0.44	0.50
Marital Status	2401	0.57	0.50	2700	0.66	0.47	2700	0.55	0.50
Education	2401	11.60	3.12	2700	11.01	2.72	2700	12.35	2.92
In Household size	2401	1.03	0.52	2700	1.63	0.47	2700	0.95	0.49
Religion: Orthodox	2401	0.87	0.33	2700	0.01	0.12	2700	0.69	0.46
Religion: Catholic	2401	0.06	0.25	2700	0.00	0.02	2700	0.09	0.29
Religion: Islam	2401	0.04	0.19	2700	0.98	0.15	2700	0.00	0.00
Religion: Atheist	2401	0.01	0.08	2700	0.00	0.06	2700	0.15	0.35
Religion: Other	2401	0.02	0.14	2700	0.01	0.08	2700	0.07	0.26
Settlement type: Village	2401	0.47	0.50	2700	0.69	0.46	2700	0.31	0.46
Settlement type: Small town	2401	0.22	0.42	2700	0.14	0.35	2700	0.38	0.48
Settlement type: Regional center	2401	0.15	0.36	2700	0.07	0.26	2700	0.25	0.43
Settlement type: Capital	2401	0.15	0.36	2700	0.09	0.29	2700	0.06	0.24
In population in settlement	2401	9.86	2.58	2700	8.97	2.09	2700	10.69	2.52

Table 10. Relative consumption and well-being across countries

D L 437 1 L	(1)	(2)	(3)	(4)	(5)	(6)
Dependent Variable: Self-reported Well-being			seline	, ,	IV for H	lousehold mption
In Household consumption	0.165***	0.157***	0.177***	0.169***	0.458***	0.521***
In Mean HHC in locality ¹			-0.127***	-0.102***		-0.088***
House Owner	0.322***	0.310***	0.319***	0.307***	0.259***	0.254***
Land Owner	0.136***	0.141***	0.136***	0.140***	0.146***	0.145***
Unemployed	-0.411***	-0.429***	-0.412***	-0.430***	-0.343***	-0.331***
Not in the Lobar Force	-0.061***	-0.077***	-0.062***	-0.078***	-0.02	-0.011
Female	-0.014	-0.017	-0.014	-0.017	-0.019	-0.019
Age	-0.045***	-0.044***	-0.045***	-0.044***	-0.045***	-0.044***
Age Squared	0.043***	0.042***	0.043***	0.042***	0.043***	0.043***
Ethnicity in Settlement (<10%) (Omitted)						
Ethnicity in Settlement (10-20%)	-0.025	-0.034	-0.019	-0.028	-0.042	-0.037
Ethnicity in Settlement (20-40%)	0.106*	0.167***	0.117**	0.177***	0.139***	0.145***
Ethnicity in Settlement (40-60%)	0.021	0.072	0.027	0.076	0.062	0.068
Ethnicity in Settlement (60-80%)	0.061	0.086*	0.067	0.089*	0.076	0.077*
Ethnicity in Settlement (>80%)	0.04	0.074*	0.048	0.080*	0.057	0.062
Marital Status	0.152***	0.157***	0.152***	0.157***	0.127***	0.123***
Education	0.043***	0.042***	0.043***	0.042***	0.028***	0.026***
ln Household size	-0.051**	-0.085***	-0.055**	-0.088***	-0.180***	-0.201***
Religion: Orthodox (Omitted)						
Religion: Catholic	0.088*	0.178***	0.087*	0.179***	0.230***	0.240***
Religion: Islam	0.111**	0.057	0.105**	0.053	0.068	0.069
Religion: Atheist	-0.111**	-0.142***	-0.109**	-0.145***	-0.128***	-0.129***
Religion: Other	0.105	0.114*	0.104	0.115*	0.110*	0.108*
Settlement type: Village (Omitted)						
Settlement type: Small town	0.04	0.047	0.034	0.041	0.046	0.042
Settlement type: Regional center	0.056	0.080**	0.056	0.075*	0.059	0.053
Settlement type: Capital	-0.014	0.007	-0.019	0.01	-0.008	-0.008
In Population in settlement	0.007	-0.005	0.011	-0.001	-0.015*	-0.015*
Regional dummies	yes	no	yes	no	no	no
Country dummy: Kazakhstan (Omitted)						
Country dummy: Moldova	-0.201*	-0.197***	-0.184*	-0.180***	-0.201***	-0.188***
Country dummy: Macedonia	-0.717***	-0.312***	-0.633***	-0.233***	-0.569***	-0.545***
Country dummy: Serbia	-0.954***	-0.568***	-0.874***	-0.486***	-0.841***	-0.820***
Country dummy: Tajikistan	0.359**	0.309***	0.318**	0.346***	0.287***	0.319***
Country dummy: Ukraine	-0.518***	-0.720***	-0.433***	-0.659***	-0.843***	-0.816***
Cut-off 1	-0.864***	-0.980***	-1.548***	-1.503***	0.398	0.192
Cut-off 2	0.193	0.059	-0.490*	-0.465**	1.426***	1.220***
Cut-off 3	1.095***	0.037	0.412	0.424**	2.302***	2.097***
Cut-off 4	2.456***	2.287***	1.774***	1.765***	3.629***	3.424***
N	13466	13466	13466	13466	14730	14729
N-4 (1) I lite in J-C J Jintoi-4 (2) * **		13400	13400			

Note: (1) Locality is defined as district. (2) *, **, and *** indicate significance at the 10%, 5%, and 1% level respectively.

Table 11. Relative consumption and well-being in Kazakhstan

Dan and and Wassishlar	(1)	(2)	(3)	(4)	(5)	(6)
Dependent Variable: Self-reported Well-being	Baseline				IV for Household Consumption	
In Household consumption	0.230***	0.218***	0.233***	0.231***	0.511***	0.495***
In Mean HHC in locality ¹			-0.019	-0.072		0.017
House Owner	0.445***	0.450***	0.445***	0.449***	0.375***	0.376***
Land Owner	0.248***	0.244***	0.248***	0.241***	0.255***	0.255***
Unemployed	-0.417***	-0.417***	-0.416***	-0.416***	-0.343***	-0.346***
Not in the Lobar Force	-0.117**	-0.164***	-0.118**	-0.165***	-0.133**	-0.135**
Female	-0.075	-0.076*	-0.075	-0.076*	-0.072	-0.072
Age	-0.044***	-0.044***	-0.044***	-0.044***	-0.043***	-0.043***
Age Squared	0.046***	0.045***	0.046***	0.045***	0.045***	0.045***
Ethnicity in Settlement (<10%) (Omitted)						
Ethnicity in Settlement (10-20%)	-0.168*	-0.186*	-0.167*	-0.184*	-0.190**	-0.191**
Ethnicity in Settlement (20-40%)	-0.154	-0.053	-0.153	-0.052	-0.063	-0.062
Ethnicity in Settlement (40-60%)	-0.348***	-0.227***	-0.347***	-0.233***	-0.208**	-0.208**
Ethnicity in Settlement (60-80%)	-0.243**	-0.065	-0.241**	-0.063	-0.038	-0.039
Ethnicity in Settlement (>80%)	-0.073	-0.175**	-0.073	-0.175**	-0.176**	-0.177**
Marital Status	0.148***	0.154***	0.148***	0.154***	0.127**	0.129**
Education	0.040***	0.037***	0.040***	0.037***	0.021**	0.021**
ln Household size	-0.141***	-0.221***	-0.141***	-0.221***	-0.319***	-0.315***
Religion: Orthodox (Omitted)						•
Religion: Catholic	0.084	0.107	0.084	0.107	0.192	0.19
Religion: Islam	0.255***	0.210***	0.254***	0.210***	0.239***	0.238***
Religion: Atheist	-0.017	-0.012	-0.017	-0.011	0.03	0.029
Religion: Other	0.185	0.072	0.185	0.076	0.056	0.056
Settlement type: Village (Omitted)						•
Settlement type: Small town	0.01	0.106	0.01	0.103	0.106	0.106
Settlement type: Regional center	0.144	0.287***	0.146	0.291***	0.246**	0.246**
Settlement type: Capital	0.103	0.278*	0.108	0.290**	0.268*	0.264*
In Population in settlement	0.02	-0.021	0.021	-0.017	-0.033	-0.033
Regional dummies	yes	no	yes	no	no	no
Cut-off 1	-0.386	-0.815**	-0.541	-1.159**	0.495	0.541
Cut-off 2	0.771**	0.313	0.615	-0.03	1.602**	1.649**
Cut-off 3	1.544***	1.062***	1.389***	0.719	2.341***	2.387***
Cut-off 4	2.961***	2.426***	2.806***	2.083***	3.700***	3.746***
N	2484	2484	2484	2484	2653	2653

Note: (1) Locality is defined as district. (2) *, **, and *** indicate significance at the 10%, 5%, and 1% level respectively.

Table 12. Relative consumption and well-being in Moldova

D 1 . 4 W. 2 . 1	(1)	(2)	(3)	(4)	(5)	(6)	
Dependent Variable: Self-reported Well-being		Bas	seline		IV for Household Consumption		
In Household consumption	0.087***	0.088***	0.094***	0.096***	1.012***	1.033***	
In Mean HHC in locality ¹			-0.292**	-0.317***		-0.266**	
House Owner	0.339***	0.344***	0.335***	0.337***	0.260***	0.253***	
Land Owner	0.061	0.061	0.062	0.06	0.051	0.051	
Unemployed	-0.338***	-0.345***	-0.338***	-0.342***	-0.089	-0.082	
Not in the Lobar Force	-0.065	-0.064	-0.065	-0.065	0.134**	0.137**	
Female	0.011	0.011	0.015	0.014	0.009	0.012	
Age	-0.049***	-0.049***	-0.049***	-0.049***	-0.040***	-0.040***	
Age Squared	0.043***	0.043***	0.043***	0.043***	0.036***	0.036***	
Ethnicity in Settlement (<10%) (Omitted)							
Ethnicity in Settlement (10-20%)	0.141	0.148	0.142	0.144	0.149	0.146	
Ethnicity in Settlement (20-40%)	0.333	0.360*	0.333	0.342*	0.333*	0.317	
Ethnicity in Settlement (40-60%)	0.483***	0.497***	0.497***	0.501***	0.518***	0.521***	
Ethnicity in Settlement (60-80%)	0.526***	0.526***	0.527***	0.527***	0.494***	0.494***	
Ethnicity in Settlement (>80%)	0.394***	0.410***	0.399***	0.405***	0.429***	0.425***	
Marital Status	0.137***	0.139***	0.135**	0.135**	0.06	0.055	
Education	0.030***	0.030***	0.031***	0.031***	-0.007	-0.007	
ln Household size	0.064	0.058	0.061	0.059	-0.229***	-0.234***	
Religion: Orthodox (Omitted)							
Religion: Catholic	0.283**	0.284**	0.298**	0.299**	0.422***	0.438***	
Religion: Islam	-0.112	-0.114	-0.1	-0.095	-0.12	-0.105	
Religion: Atheist	0.102	0.093	0.107	0.103	0.108	0.113	
Religion: Other	0.409**	0.404**	0.405**	0.405**	0.299	0.3	
Settlement type: Village (Omitted)							
Settlement type: Small town	0.109	0.052	0.092	0.072	0.078	0.097	
Settlement type: Regional center	0.088	0.103	0.081	0.081	0.089	0.073	
Settlement type: Capital	-0.177	-0.221	-0.235	-0.244	-0.154	-0.172	
In Population in settlement	-0.007	-0.009	0.005	0.007	-0.083**	-0.071**	
Regional dummies	yes	no	yes	no	no	no	
Cut-off 1	-1.090***	-1.153***	-2.812***	-2.949***	3.068***	1.631	
Cut-off 2	-0.068	-0.131	-1.788**	-1.926***	4.082***	2.646**	
Cut-off 3	0.955**	0.891**	-0.764	-0.902	5.092***	3.657***	
Cut-off 4	2.236***	2.171***	0.518	0.38	6.384***	4.951***	
N	2538	2538	2538	2538	2666	2666	

Table 13. Relative consumption and well-being in Macedonia

D 1 477 111	(1)	(2)	(3)	(4)	(5)	(6)	
Dependent Variable: Self-reported well-being			seline		IV for Household Consumption		
In Household consumption	0.235***	0.231***	0.266***	0.263***	1.241***	1.241***	
In Mean HHC in locality ¹		•	-0.181*	-0.167*		-0.014	
House Owner	0.232***	0.207***	0.226***	0.201***	0.079	0.077	
Land Owner	0.143***	0.147***	0.147***	0.151***	0.148***	0.148***	
Unemployed	-0.616***	-0.611***	-0.612***	-0.610***	-0.347***	-0.349***	
Not in the Lobar Force	0.008	0.014	0.014	0.013	0.205***	0.206***	
Female	0.07	0.08	0.068	0.075	0.084*	0.083*	
Age	-0.066***	-0.063***	-0.065***	-0.063***	-0.059***	-0.059***	
Age Squared	0.067***	0.065***	0.066***	0.065***	0.063***	0.063***	
Ethnicity in Settlement (<10%) (Omitted) Ethnicity in Settlement (10-20%)							
Ethnicity in Settlement (20-40%)	0.319*	0.495***	0.355*	0.522***	0.390**	0.392**	
Ethnicity in Settlement (40-60%)	0.415**	0.566***	0.438***	0.581***	0.572***	0.573***	
Ethnicity in Settlement (60-80%)	0.37	0.057	0.356	0.043	0.035	0.035	
Ethnicity in Settlement (>80%)	0.288*	0.347**	0.302**	0.355**	0.288*	0.289**	
Marital Status	0.189***	0.202***	0.185***	0.200***	0.076	0.076	
Education	0.064***	0.065***	0.062***	0.063***	0.024**	0.024**	
ln Household size	0.003	-0.007	-0.009	-0.02	-0.376***	-0.377***	
Religion: Orthodox (Omitted)		•					
Religion: Catholic	0.093	0.144**	0.085	0.146**	0.263***	0.264***	
Religion: Islam		•					
Religion: Atheist	-0.485	-0.312	-0.47	-0.298	-0.049	-0.046	
Religion: Other	-0.807**	-0.712*	-0.807**	-0.715*	-0.838*	-0.836*	
Settlement type: Village (Omitted)		•					
Settlement type: Small town	0.085	0.03	0.03	-0.015	-0.021	-0.024	
Settlement type: Regional center	-0.031	-0.082	-0.053	-0.096	-0.179*	-0.180*	
Settlement type: Capital	-0.073	0.008	-0.093	-0.008	-0.059	-0.06	
In Population in settlement	-0.017	-0.013	-0.004	-0.001	-0.063**	-0.062*	
Regional dummies	yes	no	yes	no	no	no	
Cut-off 1	-0.361	-0.102	-1.314*	-0.973	5.240***	5.165***	
Cut-off 2	0.686	0.930**	-0.266	0.059	6.323***	6.248***	
Cut-off 3	1.786***	2.019***	0.835	1.149*	7.368***	7.293***	
Cut-off 4	3.239***	3.460***	2.290***	2.593***	8.782***	8.706***	
N	2026	2026	2026	2026	2185	2184	

Table 14. Relative consumption and well-being in Serbia

Dan and and Wassishlar	(1)	(2)	(3)	(4)	(5)	(6)	
Dependent Variable: Self-reported well-being		Bas	seline		IV for Household Consumption		
In Household consumption	0.372***	0.355***	0.381***	0.364***	0.778***	0.792***	
In Mean HHC in locality ¹			-0.25	-0.163		-0.027	
House Owner	0.352***	0.328***	0.349***	0.324***	0.343***	0.341***	
Land Owner	0.249***	0.228***	0.243***	0.220***	0.174***	0.173***	
Unemployed	-0.546***	-0.611***	-0.546***	-0.614***	-0.483***	-0.480***	
Not in the Lobar Force	-0.012	-0.054	-0.016	-0.059	0.047	0.049	
Female	0.023	0.03	0.024	0.029	0.029	0.029	
Age	-0.059***	-0.061***	-0.060***	-0.061***	-0.061***	-0.061***	
Age Squared	0.052***	0.055***	0.053***	0.055***	0.056***	0.056***	
Ethnicity in Settlement (<10%) (Omitted)	•					•	
Ethnicity in Settlement (10-20%)	0.031	0.127	0.038	0.134	0.182	0.182	
Ethnicity in Settlement (20-40%)	0.116	0.244	0.131	0.256	0.266*	0.267*	
Ethnicity in Settlement (40-60%)	-0.018	0.15	0.012	0.172	0.182	0.186	
Ethnicity in Settlement (60-80%)	-0.091	0.016	-0.09	0.021	0.08	0.08	
Ethnicity in Settlement (>80%)	0.024	0.03	0.038	0.044	0.034	0.036	
Marital Status	0.372***	0.366***	0.364***	0.361***	0.289***	0.287***	
Education	0.061***	0.058***	0.061***	0.058***	0.036***	0.036***	
In Household size	-0.312***	-0.322***	-0.305***	-0.317***	-0.412***	-0.416***	
Religion: Orthodox (Omitted)	•					•	
Religion: Catholic	0.146	0.313***	0.138	0.311***	0.370***	0.373***	
Religion: Islam	-0.159	-0.235*	-0.148	-0.237*	-0.411***	-0.410***	
Religion: Atheist	-0.593*	-0.509*	-0.592*	-0.505*	-0.578***	-0.577***	
Religion: Other	-0.543***	-0.498***	-0.537***	-0.489***	-0.522***	-0.521***	
Settlement type: Village (Omitted)	•					•	
Settlement type: Small town	0.086	0.018	0.078	0.004	0.015	0.013	
Settlement type: Regional center	0.129	-0.024	0.134	-0.042	-0.058	-0.062	
Settlement type: Capital	0.129	-0.146	0.108	-0.136	-0.249	-0.248	
In Population in settlement	-0.013	0.032	-0.01	0.037	0.021	0.021	
Regional dummies	yes	no	yes	no	no	no	
Cut-off 1	0.665	0.860**	-1.058	-0.172	3.286***	3.186**	
Cut-off 2	1.774***	1.946***	0.051	0.914	4.340***	4.240***	
Cut-off 3	2.729***	2.885***	1.007	1.854*	5.248***	5.149***	
Cut-off 4	3.996***	4.140***	2.274*	3.109***	6.488***	6.388***	
N	1967	1967	1967	1967	2173	2173	

Table 15. Relative consumption and well-being in Tajikistan

Danandant Variable:	(1)	(2)	(3)	(4)	(5)	(6)
Dependent Variable: Self-reported well-being		Bas	IV for Household Consumption			
In Household consumption	0.104***	0.097***	0.137***	0.134***	0.230*	0.350**
In Mean HHC in locality ¹		•	-0.165***	-0.173***		-0.148***
House Owner	0.296***	0.311***	0.287***	0.302***	0.235**	0.229**
Land Owner	-0.042	-0.063	-0.035	-0.055	0.006	0.006
Unemployed	0.117	0.146	0.096	0.127	0.146*	0.157*
Not in the Lobar Force	0.091	0.099*	0.08	0.089	0.102*	0.116**
Female	-0.012	-0.014	-0.007	-0.01	-0.003	0
Age	-0.022**	-0.022**	-0.021**	-0.021**	-0.028***	-0.027***
Age Squared	0.027**	0.027**	0.025**	0.025**	0.033***	0.033***
Ethnicity in Settlement (<10%) (Omitted)		•				
Ethnicity in Settlement (10-20%)	0.127	0.136	0.148	0.169	0.075	0.101
Ethnicity in Settlement (20-40%)	0.147	0.134	0.176	0.16	0.112	0.141
Ethnicity in Settlement (40-60%)	0.023	0.026	0.033	0.038	-0.008	0.016
Ethnicity in Settlement (60-80%)	0.127	0.131	0.136	0.147	0.079	0.088
Ethnicity in Settlement (>80%)	-0.046	-0.025	-0.031	-0.007	-0.117	-0.097
Marital Status	0.088	0.098	0.09	0.1	0.118**	0.115*
Education	0.054***	0.057***	0.053***	0.054***	0.044***	0.039***
ln Household size	0.103*	0.075	0.086	0.058	0.02	-0.03
Religion: Orthodox (Omitted)						
Religion: Catholic	-0.621***	-0.570**	-0.745***	-0.702***	-0.655***	-0.782***
Religion: Islam	0.343*	0.340*	0.340*	0.330*	0.361**	0.364**
Religion: Atheist	-0.578	-0.599	-0.566	-0.592	-0.814**	-0.828**
Religion: Other	0.148	0.144	0.126	0.129	0.142	0.109
Settlement type: Village (Omitted)						
Settlement type: Small town	0.003	-0.004	0.007	0.003	0.025	0.02
Settlement type: Regional center	-0.176	-0.198	-0.165	-0.2	-0.165	-0.187
Settlement type: Capital	0.227	-0.492***	0.213	-0.509***	-0.456***	-0.463***
In Population in settlement	0.077***	0.075***	0.084***	0.083***	0.084***	0.085***
Regional dummies	yes	no	yes	no	no	no
Cut-off 1	1.152	0.368	0.325	-0.484	0.889	0.569
Cut-off 2	2.006**	1.220***	1.182	0.371	1.712**	1.395*
Cut-off 3	2.912***	2.124***	2.091**	1.279***	2.637***	2.323***
Cut-off 4	4.375***	3.582***	3.558***	2.741***	4.044***	3.733***
N	2028	2028	2028	2028	2448	2448

Table 16. Relative consumption and well-being in Ukraine

D 1 . 4 W 2 11 .	(1)	(2)	(3)	(4)	(5)	(6)	
Dependent Variable: Self-reported well-being		Bas	seline		IV for Household Consumption		
In Household consumption	0.098***	0.084***	0.087***	0.069**	0.188	-0.029	
In Mean HHC in locality ¹			0.354**	0.224**		0.236**	
House Owner	0.329***	0.263**	0.326***	0.259**	0.207**	0.218**	
Land Owner	0.130**	0.159***	0.139***	0.165***	0.175***	0.180***	
Unemployed	-0.434***	-0.463***	-0.434***	-0.465***	-0.431***	-0.477***	
Not in the Lobar Force	-0.139**	-0.139**	-0.131**	-0.136**	-0.078	-0.112*	
Female	-0.075	-0.084*	-0.076*	-0.084*	-0.091**	-0.092**	
Age	-0.045***	-0.044***	-0.044***	-0.044***	-0.049***	-0.050***	
Age Squared	0.037***	0.037***	0.036***	0.036***	0.041***	0.042***	
Ethnicity in Settlement (<10%) (Omitted)							
Ethnicity in Settlement (10-20%)	-0.248	-0.295	-0.259	-0.306	-0.239	-0.244	
Ethnicity in Settlement (20-40%)	0.012	-0.078	0.005	-0.106	-0.065	-0.067	
Ethnicity in Settlement (40-60%)	-0.155	-0.214	-0.133	-0.234*	-0.2	-0.206	
Ethnicity in Settlement (60-80%)	-0.219	-0.203	-0.221	-0.222	-0.203	-0.209	
Ethnicity in Settlement (>80%)	-0.205	-0.168	-0.217	-0.181	-0.133	-0.148	
Marital Status	0.165***	0.155***	0.160***	0.155***	0.148***	0.162***	
Education	0.018**	0.019**	0.017**	0.019**	0.015	0.022**	
ln Household size	-0.124**	-0.108**	-0.118**	-0.104*	-0.130*	-0.055	
Religion: Orthodox (Omitted)							
Religion: Catholic	-0.230*	0.006	-0.230*	0.011	0.08	0.066	
Religion: Islam							
Religion: Atheist	-0.121*	-0.185***	-0.119*	-0.169***	-0.183***	-0.171***	
Religion: Other	0.250***	0.253***	0.251***	0.256***	0.257***	0.267***	
Settlement type: Village (Omitted)							
Settlement type: Small town	0.043	0.016	0.067	0.031	0.016	0.038	
Settlement type: Regional center	0.218	0.235*	0.274**	0.281**	0.236*	0.298**	
Settlement type: Capital	-0.146	0.141	-0.111	0.134	0.177	0.197	
In Population in settlement	-0.025	-0.035	-0.035	-0.040*	-0.037*	-0.033	
Regional dummies	yes	no	yes	no	no	no	
Cut-off 1	-1.882***	-1.840***	0.424	-0.463	-1.411*	-1.011	
Cut-off 2	-0.726**	-0.707**	1.579	0.67	-0.284	0.115	
Cut-off 3	0.08	0.087	2.387**	1.466**	0.512	0.913	
Cut-off 4	1.441***	1.432***	3.754***	2.814***	1.867**	2.271***	
N	2423	2423	2423	2423	2605	2605	

Table 17. Relative consumption, social exclusion, and well-being across countries

Dependent Variable:	(1)	(2)	(3)	(4)	(5)	(6)	
Self-reported well-being		Bas	seline		IV for Household Consumption		
In Household consumption	0.177***	0.169***	0.145***	0.131***	0.521***	0.537***	
In Mean HHC in locality ¹	-0.127***	-0.102***	-0.102*	-0.035	-0.088***	-0.021	
Socially Excluded			-0.565***	-0.575***		-0.608***	
House Owner	0.319***	0.307***	0.283***	0.266***	0.254***	0.227***	
Land Owner	0.136***	0.140***	0.155***	0.145***	0.145***	0.140***	
Unemployed	-0.412***	-0.430***	-0.283***	-0.302***	-0.331***	-0.207***	
Not in the Lobar Force	-0.062***	-0.078***	0.053	0.044	-0.011	0.111***	
Female	-0.014	-0.017	-0.03	-0.032	-0.019	-0.03	
Age	-0.045***	-0.044***	-0.038***	-0.037***	-0.044***	-0.035***	
Age Squared	0.043***	0.042***	0.037***	0.036***	0.043***	0.035***	
Ethnicity in Settlement (<10%) (Omitted)							
Ethnicity in Settlement (10-20%)	-0.019	-0.028	-0.075	-0.092	-0.037	-0.104	
Ethnicity in Settlement (20-40%)	0.117**	0.177***	0.091	0.127	0.145***	0.091	
Ethnicity in Settlement (40-60%)	0.027	0.076	0.018	0.012	0.068	-0.002	
Ethnicity in Settlement (60-80%)	0.067	0.089*	-0.003	-0.02	0.077*	-0.046	
Ethnicity in Settlement (>80%)	0.048	0.080*	0.042	0.054	0.062	0.045	
Marital Status	0.152***	0.157***	0.135***	0.142***	0.123***	0.102***	
Education	0.043***	0.042***	0.028***	0.026***	0.026***	0.007	
In Household size	-0.055**	-0.088***	-0.110***	-0.146***	-0.201***	-0.285***	
Religion: Orthodox (Omitted)		*****			V V -		
Religion: Catholic	0.087*	0.179***	0.123*	0.195***	0.240***	0.267***	
Religion: Islam	0.105**	0.053	0.128*	0.185***	0.069	0.228***	
Religion: Atheist	-0.109**	-0.145***	0.017	-0.012	-0.129***	-0.004	
Religion: Other	0.104	0.115*	0.128	0.166	0.108*	0.162	
Settlement type: Village (Omitted)	0.10.	0.110				0.102	
Settlement type: Small town	0.034	0.041	0.008	0.018	0.042	0.014	
Settlement type: Regional center	0.056	0.075*	0.005	0.035	0.053	0.007	
Settlement type: Capital	-0.019	0.01	0.053	0.044	-0.008	0.021	
In Population in settlement	0.011	-0.001	-0.008	-0.017	-0.015*	-0.040***	
Regional dummies	yes	no	yes	no	no	no	
Country dummy: Kazakhstan (Omitted)	<i>y</i> 03	110	<i>y</i> c <i>s</i>	110	по	110	
Country dummy: Moldova	-0.184*	-0.180***	-0.217	-0.082	-0.188***	-0.101	
Country dummy: Macedonia	-0.633***	-0.130	-0.674***	-0.289***	-0.545***	-0.641***	
Country dummy: Nacedonia Country dummy: Serbia	-0.874***	-0.486***	-1.077***	-0.556***	-0.820***	-0.965***	
Country dummy: Scrota Country dummy: Tajikistan	0.318**	0.346***	0.474**	0.401***	0.319***	0.371***	
Country dummy: Tajikisian Country dummy: Ukraine	-0.433***	-0.659***	-0.370*	-0.701***	-0.816***	-0.913***	
Cut-off I	-1.548***	-1.503***	-2.133***	-1.758***	0.192	0.134	
Cut-off 2	-0.490*	-0.465**	-1.016**	-0.663*	1.220***	1.231**	
Cut-off 3	0.412	0.424**	-0.11	0.227	2.097***	2.114***	
Cut-off 4	1.774***	1.765***	1.311***	1.621***	3.424***	3.505***	
	13466	13466	6133	6133	14729	6033	
N			0155				

Table 18. Relative consumption, social exclusion, and well-being in Kazakhstan

B 1 4W 111	(1)	(2)	(3)	(4)	(5)	(6)
Dependent Variable: Self-reported well-being			seline	. ,	IV for H	ousehold mption
In Household consumption	0.233***	0.231***	0.116*	0.114*	0.495***	0.935***
In Mean HHC in locality ¹	-0.019	-0.072	0.034	0.031	0.017	-0.054
Socially Excluded			-0.589***	-0.628***		-0.642***
House Owner	0.445***	0.449***	0.431***	0.445***	0.376***	0.396***
Land Owner	0.248***	0.241***	0.264***	0.217***	0.255***	0.227***
Unemployed	-0.416***	-0.416***	-0.271**	-0.282**	-0.346***	-0.106
Not in the Lobar Force	-0.118**	-0.165***	0.082	0.041	-0.135**	0.167*
Female	-0.075	-0.076*	-0.071	-0.043	-0.072	-0.057
Age	-0.044***	-0.044***	-0.019*	-0.019*	-0.043***	-0.014
Age Squared	0.046***	0.045***	0.016	0.015	0.045***	0.013
Ethnicity in Settlement (<10%) (Omitted)		•				
Ethnicity in Settlement (10-20%)	-0.167*	-0.184*	-0.181	-0.258*	-0.191**	-0.237*
Ethnicity in Settlement (20-40%)	-0.153	-0.052	0.065	0.081	-0.062	0.042
Ethnicity in Settlement (40-60%)	-0.347***	-0.233***	-0.265**	-0.267**	-0.208**	-0.198
Ethnicity in Settlement (60-80%)	-0.241**	-0.063	-0.04	0.016	-0.039	0.013
Ethnicity in Settlement (>80%)	-0.073	-0.175**	0.157	0.109	-0.177**	0.118
Marital Status	0.148***	0.154***	0.112	0.142*	0.129**	0.064
Education	0.040***	0.037***	0.014	0.009	0.021**	-0.025*
ln Household size	-0.141***	-0.221***	-0.233***	-0.333***	-0.315***	-0.619***
Religion: Orthodox (Omitted)		•	•			
Religion: Catholic	0.084	0.107	0.973***	1.070***	0.19	1.225***
Religion: Islam	0.254***	0.210***	0.254***	0.271***	0.238***	0.354***
Religion: Atheist	-0.017	-0.011	0.168	0.197	0.029	0.195
Religion: Other	0.185	0.076	0.194	0.103	0.056	0.067
Settlement type: Village (Omitted)		·				
Settlement type: Small town	0.01	0.103	-0.073	-0.021	0.106	-0.034
Settlement type: Regional center	0.146	0.291***	-0.032	0.092	0.246**	0.026
Settlement type: Capital	0.108	0.290**	-0.284	0.019	0.264*	0.049
In Population in settlement	0.021	-0.017	0.023	-0.009	-0.033	-0.054*
Regional dummies	yes	no	yes	no	no	no
Cut-off 1	-0.482	-1.140**	-1.149	-1.381*	0.514	1.866*
Cut-off 2	0.674	-0.011	0.189	-0.059	1.621**	3.208***
Cut-off 3	1.448**	0.739	0.968	0.706	2.360***	3.977***
Cut-off 4	2.865***	2.102***	2.447***	2.148***	3.719***	5.433***
N	2484	2484	1247	1247	2653	1250

Table 19. Relative consumption, social exclusion, and well-being in Moldova

Danandant Variabla	(1)	(2)	(3)	(4)	(5)	(6)
Dependent Variable: Self-reported well-being		Bas		IV for Household Consumption		
In Household consumption	0.094***	0.096***	0.038	0.039	1.033***	0.381
In Mean HHC in locality ¹	-0.292**	-0.317***	-0.224	-0.340*	-0.266**	-0.327*
Socially Excluded			-0.521***	-0.507***	•	-0.518***
House Owner	0.335***	0.337***	0.279**	0.303**	0.253***	0.288**
Land Owner	0.062	0.06	0.058	0.08	0.051	0.087
Unemployed	-0.338***	-0.342***	-0.271**	-0.290**	-0.082	-0.2
Not in the Lobar Force	-0.065	-0.065	0.150*	0.154*	0.137**	0.222**
Female	0.015	0.014	-0.132*	-0.127*	0.012	-0.132*
Age	-0.049***	-0.049***	-0.030**	-0.034**	-0.040***	-0.031**
Age Squared	0.043***	0.043***	0.026	0.030*	0.036***	0.027*
Ethnicity in Settlement (<10%) (Omitted)						•
Ethnicity in Settlement (10-20%)	0.142	0.144	0.039	0.076	0.146	0.081
Ethnicity in Settlement (20-40%)	0.333	0.342*	0.16	0.229	0.317	0.204
Ethnicity in Settlement (40-60%)	0.497***	0.501***	0.245	0.279	0.521***	0.285
Ethnicity in Settlement (60-80%)	0.527***	0.527***	0.444*	0.450*	0.494***	0.428*
Ethnicity in Settlement (>80%)	0.399***	0.405***	0.296	0.277	0.425***	0.269
Marital Status	0.135**	0.135**	0.122	0.142	0.055	0.118
Education	0.031***	0.031***	0.015	0.014	-0.007	-0.001
In Household size	0.061	0.059	0.153*	0.119	-0.234***	0.003
Religion: Orthodox (Omitted)				·	•	
Religion: Catholic	0.298**	0.299**	0.407**	0.429**	0.438***	0.499**
Religion: Islam	-0.1	-0.095	0	0	-0.105	0
Religion: Atheist	0.107	0.103	0.569**	0.521**	0.113	0.519**
Religion: Other	0.405**	0.405**	0.132	0.112	0.3	0.124
Settlement type: Village (Omitted)						•
Settlement type: Small town	0.092	0.072	0.078	-0.029	0.097	-0.029
Settlement type: Regional center	0.081	0.081	-0.043	-0.016	0.073	-0.025
Settlement type: Capital	-0.235	-0.244	-0.065	-0.271	-0.172	-0.28
In Population in settlement	0.005	0.007	0.019	0.027	-0.071**	0.005
Regional dummies	yes	no	yes	no	no	no
Cut-off 1	-2.812***	-2.949***	-2.429*	-3.312***	1.631	-1.647
Cut-off 2	-1.788**	-1.926***	-1.423	-2.313*	2.646**	-0.648
Cut-off 3	-0.764	-0.902	-0.408	-1.3	3.657***	0.366
Cut-off 4	0.518	0.38	1.021	0.117	4.951***	1.783
N N	2538	2538	986	986	2666	986

Table 20. Relative consumption, social exclusion, and well-being in Macedonia

December 4 W. Chile	(1)	(2)	(3)	(4)	(5)	(6)	
Dependent Variable: Self-reported well-being			seline	, ,	IV for Household Consumption		
In Household consumption	0.266***	0.263***	0.319***	0.328***	1.241***	1.427***	
In Mean HHC in locality ¹	-0.181*	-0.167*	-0.12	-0.137	-0.014	0.073	
Socially Excluded			-0.973***	-1.014***		-1.056***	
House Owner	0.226***	0.201***	0.213**	0.189*	0.077	0.047	
Land Owner	0.147***	0.151***	0.124	0.131	0.148***	0.075	
Unemployed	-0.612***	-0.610***	-0.464***	-0.440***	-0.349***	-0.16	
Not in the Lobar Force	0.014	0.013	0.081	0.073	0.206***	0.326**	
Female	0.068	0.075	0.064	0.072	0.083*	0.134*	
Age	-0.065***	-0.063***	-0.068***	-0.065***	-0.059***	-0.066***	
Age Squared	0.066***	0.065***	0.070***	0.068***	0.063***	0.072***	
Ethnicity in Settlement (<10%) (Omitted)		•				•	
Ethnicity in Settlement (10-20%)		•				•	
Ethnicity in Settlement (20-40%)	0.355*	0.522***	0.051	0.256	0.392**	0.065	
Ethnicity in Settlement (40-60%)	0.438***	0.581***	0.016	0.16	0.573***	0.198	
Ethnicity in Settlement (60-80%)	0.356	0.043	0.211	-0.079	0.035	-0.099	
Ethnicity in Settlement (>80%)	0.302**	0.355**	-0.153	-0.115	0.289**	-0.103	
Marital Status	0.185***	0.200***	0.222**	0.223**	0.076	0.125	
Education	0.062***	0.063***	0.043***	0.043***	0.024**	-0.004	
ln Household size	-0.009	-0.02	-0.302***	-0.305***	-0.377***	-0.706***	
Religion: Orthodox (Omitted)							
Religion: Catholic	0.085	0.146**	0.058	0.155	0.264***	0.319***	
Religion: Islam							
Religion: Atheist	-0.47	-0.298	-0.501	-0.407	-0.046	-0.343	
Religion: Other	-0.807**	-0.715*	-0.392	-0.238	-0.836*	-0.176	
Settlement type: Village (Omitted)							
Settlement type: Small town	0.03	-0.015	0.127	0.06	-0.024	0.114	
Settlement type: Regional center	-0.053	-0.096	0.156	0.091	-0.180*	-0.062	
Settlement type: Capital	-0.093	-0.008	0.213	0.177	-0.06	0.101	
In Population in settlement	-0.004	-0.001	-0.082	-0.067	-0.062*	-0.119**	
Regional dummies	yes	no	yes	no	no	no	
Cut-off 1	-1.314*	-0.973	-2.255**	-2.009**	5.165***	5.258***	
Cut-off 2	-0.266	0.059	-1.165	-0.935	6.248***	6.342***	
Cut-off 3	0.835	1.149*	-0.081	0.143	7.293***	7.389***	
Cut-off 4	2.290***	2.593***	1.352	1.561	8.706***	8.776***	
N	2026	2026	882	882	2184	842	

Table 21. Relative consumption, social exclusion, and well-being in Serbia

Janandant Variabla	(1)	(2)	(3)	(4)	(5)	(6)
Dependent Variable: Self-reported well-being		Bas	IV for Household Consumption			
In Household consumption	0.381***	0.364***	0.328***	0.322***	0.792***	0.846**
In Mean HHC in locality ¹	-0.25	-0.163	-0.175	-0.08	-0.027	-0.061
Socially Excluded			-0.691***	-0.705***	•	-0.814***
House Owner	0.349***	0.324***	0.264**	0.247**	0.341***	0.227**
Land Owner	0.243***	0.220***	0.383***	0.359***	0.173***	0.344***
Unemployed	-0.546***	-0.614***	-0.465***	-0.484***	-0.480***	-0.336**
Not in the Lobar Force	-0.016	-0.059	0.006	0.02	0.049	0.102
Female	0.024	0.029	0.063	0.069	0.029	0.085
Age	-0.060***	-0.061***	-0.066***	-0.067***	-0.061***	-0.068***
Age Squared	0.053***	0.055***	0.059***	0.059***	0.056***	0.063***
Ethnicity in Settlement (<10%) (Omitted)					•	
Ethnicity in Settlement (10-20%)	0.038	0.134	0.286	0.448	0.182	0.39
Ethnicity in Settlement (20-40%)	0.131	0.256	0.375*	0.494**	0.267*	0.486**
Ethnicity in Settlement (40-60%)	0.012	0.172	0.116	0.324	0.186	0.174
Ethnicity in Settlement (60-80%)	-0.09	0.021	-0.215	-0.08	0.08	-0.202
Ethnicity in Settlement (>80%)	0.038	0.044	-0.016	0.076	0.036	-0.006
Marital Status	0.364***	0.361***	0.427***	0.431***	0.287***	0.327***
Education	0.061***	0.058***	0.039***	0.036***	0.036***	0.008
In Household size	-0.305***	-0.317***	-0.422***	-0.477***	-0.416***	-0.633***
Religion: Orthodox (Omitted)						•
Religion: Catholic	0.138	0.311***	0.17	0.21	0.373***	0.362**
Religion: Islam	-0.148	-0.237*	-0.023	0.028	-0.410***	0.059
Religion: Atheist	-0.592*	-0.505*	-0.522	-0.448	-0.577***	-0.43
Religion: Other	-0.537***	-0.489***	-0.294	-0.274	-0.521***	-0.308
Settlement type: Village (Omitted)					•	
Settlement type: Small town	0.078	0.004	0.212*	0.112	0.013	0.133
Settlement type: Regional center	0.134	-0.042	0.298*	0.134	-0.062	0.097
Settlement type: Capital	0.108	-0.136	0.189	0.103	-0.248	0.041
In Population in settlement	-0.01	0.037	-0.044	0.001	0.021	-0.028
Regional dummies	yes	no	yes	no	no	no
Cut-off 1	-1.058	-0.172	-2.022	-0.808	3.186**	2.03
Cut-off 2	0.051	0.914	-0.861	0.329	4.240***	3.146
Cut-off 3	1.007	1.854*	0.195	1.363	5.149***	4.166**
Cut-off 4	2.274*	3.109***	1.557	2.710**	6.388***	5.496***
N	1967	1967	992	992	2173	941

Table 22. Relative consumption, social exclusion, and well-being in Tajikistan

Danandant Variabla	(1)	(2)	(3)	(4)	(5)	(6)
Dependent Variable: Self-reported well-being		Bas	IV for Household Consumption			
In Household consumption	0.137***	0.134***	0.127**	0.124**	0.350**	-0.417
In Mean HHC in locality ¹	-0.165***	-0.173***	-0.220**	-0.221**	-0.148***	-0.122
Socially Excluded			-0.459***	-0.440***		-0.464***
House Owner	0.287***	0.302***	0.274*	0.257*	0.229**	0.287*
Land Owner	-0.035	-0.055	0.011	-0.004	0.006	0.016
Unemployed	0.096	0.127	0.265**	0.233*	0.157*	0.122
Not in the Lobar Force	0.08	0.089	0.228**	0.220**	0.116**	0.131
Female	-0.007	-0.01	-0.057	-0.058	0	-0.049
Age	-0.021**	-0.021**	-0.024	-0.021	-0.027***	-0.024
Age Squared	0.025**	0.025**	0.036**	0.032*	0.033***	0.036**
Ethnicity in Settlement (<10%) (Omitted)						
Ethnicity in Settlement (10-20%)	0.148	0.169	-0.101	-0.143	0.101	-0.189
Ethnicity in Settlement (20-40%)	0.176	0.16	-0.327	-0.296	0.141	-0.317
Ethnicity in Settlement (40-60%)	0.033	0.038	0.328**	0.301*	0.016	0.275*
Ethnicity in Settlement (60-80%)	0.136	0.147	0.036	-0.046	0.088	-0.042
Ethnicity in Settlement (>80%)	-0.031	-0.007	0.025	-0.008	-0.097	-0.004
Marital Status	0.09	0.1	0.034	0.047	0.115*	0.101
Education	0.053***	0.054***	0.045***	0.044**	0.039***	0.061***
In Household size	0.086	0.058	0.14	0.122	-0.03	0.330**
Religion: Orthodox (Omitted)						
Religion: Catholic	-0.745***	-0.702***	0	0	-0.782***	0
Religion: Islam	0.340*	0.330*	0.289	0.321	0.364**	0.226
Religion: Atheist	-0.566	-0.592	-0.507	-0.477	-0.828**	-0.506
Religion: Other	0.126	0.129	1.025***	0.868**	0.109	0.882**
Settlement type: Village (Omitted)				•	•	
Settlement type: Small town	0.007	0.003	0.137	0.099	0.02	0.099
Settlement type: Regional center	-0.165	-0.2	-0.121	-0.112	-0.187	-0.081
Settlement type: Capital	0.213	-0.509***	0.781	-0.520*	-0.463***	-0.538*
In Population in settlement	0.084***	0.083***	0.046	0.062*	0.085***	0.082**
Regional dummies	yes	no	yes	no	no	no
Cut-off 1	0.325	-0.484	0	-1.104	0.569	-3.121**
Cut-off 2	1.182	0.371	0.83	-0.284	1.395*	-2.306
Cut-off 3	2.091**	1.279***	1.733	0.605	2.323***	-1.419
Cut-off 4	3.558***	2.741***	3.293***	2.145**	3.733***	0.111
N	2028	2028	846	846	2448	837

Table 23. Relative consumption, social exclusion, and well-being in Ukraine

Denondent Veriable:	(1)	(2)	(3)	(4)	(5)	(6)		
Dependent Variable: Self-reported well-being		Bas	seline			IV for Household Consumption		
In Household consumption	0.087***	0.069**	0.015	-0.039	-0.029	-0.042		
In Mean HHC in locality ¹	0.354**	0.224**	0.572***	0.518***	0.236**	0.519***		
Socially Excluded			-0.704***	-0.733***		-0.721***		
House Owner	0.326***	0.259**	0.247*	0.16	0.218**	0.157		
Land Owner	0.139***	0.165***	0.079	0.095	0.180***	0.092		
Unemployed	-0.434***	-0.465***	-0.327**	-0.349**	-0.477***	-0.357**		
Not in the Lobar Force	-0.131**	-0.136**	-0.078	-0.089	-0.112*	-0.09		
Female	-0.076*	-0.084*	-0.074	-0.085	-0.092**	-0.086		
Age	-0.044***	-0.044***	-0.039***	-0.041***	-0.050***	-0.041***		
Age Squared	0.036***	0.036***	0.035***	0.037***	0.042***	0.037***		
Ethnicity in Settlement (<10%) (Omitted)								
Ethnicity in Settlement (10-20%)	-0.259	-0.306	0.211	0.082	-0.244	0.107		
Ethnicity in Settlement (20-40%)	0.005	-0.106	-0.188	-0.283	-0.067	-0.253		
Ethnicity in Settlement (40-60%)	-0.133	-0.234*	-0.057	-0.227	-0.206	-0.186		
Ethnicity in Settlement (60-80%)	-0.221	-0.222	-0.236	-0.283	-0.209	-0.253		
Ethnicity in Settlement (>80%)	-0.217	-0.181	-0.15	-0.128	-0.148	-0.093		
Marital Status	0.160***	0.155***	0.148*	0.157**	0.162***	0.151*		
Education	0.017**	0.019**	0.014	0.017	0.022**	0.018		
ln Household size	-0.118**	-0.104*	-0.191**	-0.143	-0.055	-0.137		
Religion: Orthodox (Omitted)	•			•				
Religion: Catholic	-0.230*	0.011	-0.205	0.044	0.066	0.037		
Religion: Islam						•		
Religion: Atheist	-0.119*	-0.169***	-0.01	-0.06	-0.171***	-0.059		
Religion: Other	0.251***	0.256***	0.103	0.133	0.267***	0.143		
Settlement type: Village (Omitted)						•		
Settlement type: Small town	0.067	0.031	-0.126	-0.134	0.038	-0.132		
Settlement type: Regional center	0.274**	0.281**	-0.083	-0.04	0.298**	-0.023		
Settlement type: Capital	-0.111	0.134	-0.708**	-0.283	0.197	-0.27		
In Population in settlement	-0.035	-0.040*	-0.014	-0.023	-0.033	-0.025		
Regional dummies	yes	no	yes	no	no	no		
Cut-off 1	0.424	-0.463	1.152	0.626	-1.011	0.634		
Cut-off 2	1.579	0.67	2.425*	1.871*	0.115	1.878		
Cut-off 3	2.387**	1.466**	3.268**	2.694***	0.913	2.700**		
Cut-off 4	3.754***	2.814***	4.670***	4.050***	2.271***	4.057***		
N	2423	2423	1180	1180	2605	1177		

Table 24. Relative consumption and well-being across countries: The Role of Reference Group

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent Variable:		gion ¹		District ²			Settlemen	
Self-reported well-being	Baseline	IV	Bas	seline	IV	Bas	seline	IV
In Household consumption	0.158***	0.700***	0.177***	0.169***	0.521***	0.170***	0.177***	0.505***
In Mean HHC in locality	-0.033	-0.348***	-0.127***	-0.102***	-0.088***	-0.195***	-0.122***	-0.065**
House Owner	0.309***	0.242***	0.319***	0.307***	0.254***	0.319***	0.305***	0.255***
Land Owner	0.141***	0.145***	0.136***	0.140***	0.145***	0.135***	0.141***	0.146***
Unemployed	-0.429***	-0.287***	-0.412***	-0.430***	-0.331***	-0.410***	-0.431***	-0.335***
Not in the Lobar Force	-0.077***	0.022	-0.062***	-0.078***	-0.011	-0.062***	-0.079***	-0.014
Female	-0.017	-0.019	-0.014	-0.017	-0.019	-0.014	-0.018	-0.019
Age	-0.044***	-0.043***	-0.045***	-0.044***	-0.044***	-0.045***	-0.045***	-0.044***
Age Squared	0.042***	0.042***	0.043***	0.042***	0.043***	0.043***	0.042***	0.043***
Ethnicity in Settlement (<10%)								
Ethnicity in Settlement (10-20%)	-0.034	-0.04	-0.019	-0.028	-0.037	-0.029	-0.03	-0.041
Ethnicity in Settlement (20-40%)	0.168***	0.139***	0.117**	0.177***	0.145***	0.104*	0.176***	0.141***
Ethnicity in Settlement (40-60%)	0.072	0.065	0.027	0.076*	0.068	0.022	0.075*	0.065
Ethnicity in Settlement (60-80%)	0.085*	0.067	0.067	0.089**	0.077*	0.059	0.087**	0.076
Ethnicity in Settlement (>80%)	0.074*	0.052	0.048	0.080**	0.062	0.036	0.078*	0.06
Marital Status	0.157***	0.108***	0.152***	0.157***	0.123***	0.152***	0.157***	0.125***
Education	0.042***	0.019***	0.043***	0.042***	0.026***	0.043***	0.041***	0.027***
ln Household size	-0.085***	-0.260***	-0.055**	-0.088***	-0.201***	-0.052**	-0.090***	-0.195***
Religion: Orthodox (Omitted)								
Religion: Catholic	0.179***	0.270***	0.087*	0.179***	0.240***	0.089*	0.180***	0.238***
Religion: Islam	0.057	0.089**	0.105**	0.053	0.069	0.108**	0.056	0.070*
Religion: Atheist	-0.143***	-0.140***	-0.109**	-0.145***	-0.129***	-0.114**	-0.146***	-0.129***
Religion: Other	0.115*	0.099	0.104	0.115*	0.108*	0.108	0.115*	0.108*
Settlement type: Village								
Settlement type: Small town	0.046	0.037	0.034	0.041	0.042	0.056*	0.044	0.044
Settlement type: Regional center	0.077*	0.02	0.056	0.075*	0.053	0.099**	0.086**	0.059
Settlement type: Capital	0.01	0.012	-0.019	0.01	-0.008	0.023	0.014	-0.007
In Population in settlement	-0.004	-0.024***	0.011	-0.001	-0.015*	0.008	0.001	-0.014*
Regional dummies	No	No	Yes	No	No	Yes	No	No
Country dummy: Kazakhstan			٠					
Country dummy: Moldova	-0.192***	-0.157***	-0.184*	-0.180***	-0.188***	-0.191*	-0.175***	-0.191***
Country dummy: Macedonia	-0.285***	-0.471***	-0.633***	-0.233***	-0.545***	-0.596***	-0.221***	-0.551***
Country dummy: Serbia	-0.539***	-0.757***	-0.874***	-0.486***	-0.820***		-0.473***	-0.825***
Country dummy: Tajikistan	0.322***	0.410***	0.318**	0.346***	0.319***	0.276*	0.353***	0.311***
Country dummy: Ukraine	-0.698***	-0.728***		-0.659***	-0.816***	-0.384***	-0.653***	-0.825***
Cut-off 1	-1.171***	-0.562	-1.548***	-1.503***	0.192	-2.034***	-1.561***	0.258
Cut-off 2	-0.132	0.465	-0.490*	-0.465**	1.220***	-0.977**	-0.522***	1.286***
Cut-off 3	0.756*	1.343***	0.412	0.424**	2.097***	-0.074	0.367*	2.162***
Cut-off 4	2.096***		1.774***	1.765***	3.424***	1.287***	1.708***	3.489***
N	13466	14730	13466	13466	14729	13466	13466	14725

Table 25. Relative consumption and well-being in Kazakhstan: The Role of Reference Group

Donondont Voriables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent Variable: Self-reported well-being	Reg	gion ¹		District ²			Settlemen	t ³
Seij-reportea wen-veing	Baseline	IV	Bas	seline	IV	Bas	seline	IV
In Household consumption	0.219***	0.780***	0.233***	0.231***	0.495***	0.235***	0.235***	0.473***
In Mean HHC in locality	-0.011	-0.269	-0.019	-0.072	0.017	-0.033	-0.081	0.042
House Owner	0.450***	0.356***	0.445***	0.449***	0.376***	0.446***	0.450***	0.378***
Land Owner	0.244***	0.253***	0.248***	0.241***	0.255***	0.248***	0.241***	0.256***
Unemployed	-0.417***	-0.282***	-0.416***	-0.416***	-0.346***	-0.416***	-0.416***	-0.351***
Not in the Lobar Force	-0.164***	-0.09	-0.118**	-0.165***	-0.135**	-0.118**	-0.165***	-0.138**
Female	-0.076*	-0.073*	-0.075*	-0.076*	-0.072	-0.076*	-0.076*	-0.071
Age	-0.044***	-0.043***	-0.044***	-0.044***	-0.043***	-0.044***	-0.044***	-0.043***
Age Squared	0.045***	0.045***	0.046***	0.045***	0.045***	0.047***	0.045***	0.045***
Ethnicity in Settlement (<10%)		•	•					
Ethnicity in Settlement (10-20%)	-0.186*	-0.187**	-0.167*	-0.184*	-0.191**	-0.166*	-0.184*	-0.192**
Ethnicity in Settlement (20-40%)	-0.052	-0.068	-0.153*	-0.052	-0.062	-0.153*	-0.052	-0.062
Ethnicity in Settlement (40-60%)	-0.228***	-0.216**	-0.347***	-0.233***	-0.208**	-0.347***	-0.233***	-0.208**
Ethnicity in Settlement (60-80%)	-0.066	-0.054	-0.241**	-0.063	-0.039	-0.239**	-0.061	-0.04
Ethnicity in Settlement (>80%)	-0.175**	-0.184**	-0.073	-0.175**	-0.177**	-0.072	-0.173**	-0.178**
Marital Status	0.154***	0.104**	0.148***	0.154***	0.129**	0.148***	0.155***	0.130**
Education	0.037***	0.012	0.040***	0.037***	0.021**	0.040***	0.037***	0.022**
ln Household size	-0.221***	-0.407***	-0.141***	-0.221***	-0.315***	-0.142***	-0.221***	-0.309***
Religion: Orthodox (Omitted)								
Religion: Catholic	0.107	0.24	0.084	0.107	0.19	0.085	0.111	0.186
Religion: Islam	0.210***	0.268***	0.254***	0.210***	0.238***	0.253***	0.210***	0.237***
Religion: Atheist	-0.012	0.028	-0.017	-0.011	0.029	-0.016	-0.011	0.028
Religion: Other	0.072	0.048	0.185	0.076	0.056	0.185	0.077	0.055
Settlement type: Village		•	•					
Settlement type: Small town	0.105	0.102	0.01	0.103	0.106	0.009	0.099	0.108
Settlement type: Regional center	0.286***	0.217**	0.146	0.291***	0.246**	0.148	0.290***	0.245**
Settlement type: Capital	0.277*	0.291**	0.108	0.290*	0.264*	0.11	0.289*	0.259*
In Population in settlement	-0.02	-0.044*	0.021	-0.017	-0.033	0.022	-0.016	-0.033
Regional dummies	No	No	Yes	No	No	Yes	No	No
Cut-off 1	-0.876	0.138	-0.482	-1.140**	0.514	-0.541	-1.159***	0.541
Cut-off 2	0.252	1.245*	0.674	-0.011	1.621**	0.615	-0.03	1.649**
Cut-off 3	1.001	1.984***	1.448***	0.739	2.360***	1.389***	0.719*	2.387***
Cut-off 4	2.365***	3.345***	2.865***	2.102***	3.719***	2.806***	2.083***	3.746***
N	2484	2653	2484	2484	2653	2484	2484	2653

Table 26. Relative consumption and well-being in Moldova: The Role of Reference Group

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent Variable:		gion ¹	(3)	District ²	(3)	(0)	Settlemen	
Self-reported well-being	Baseline	IV	Rac	seline	IV	Rac	seline	IV
In Household consumption	0.088***		0.094***		1.033***	0.092***		1.032***
In Mean HHC in locality	-0.571	-0.496	-0.292**	-0.317***	-0.266**		-0.218***	-0.154*
House Owner	0.339***	0.256***	0.335***		0.253***	0.335***		0.256***
Land Owner	0.058	0.048	0.062	0.06	0.051	0.076	0.065	0.054
Unemployed	-0.340***		-0.338***		-0.082	-0.339***		-0.081
Not in the Lobar Force	-0.066	0.136**	-0.065	-0.065	0.137**	-0.065	-0.063	0.138**
Female	0.01	0.008	0.015	0.014	0.012	0.011	0.012	0.01
Age	-0.049***		-0.049***		-0.040***	-0.049***		-0.040***
Age Squared	0.043***		0.043***		0.036***	0.043***		0.036***
Ethnicity in Settlement (<10%)	0.0.5	0.050	0.0.5	0.0.5	0.020	0.0.5	0.0.5	0.050
Ethnicity in Settlement (10-20%)	0.138	0.14	0.142	0.144	0.146	0.147	0.139	0.144
Ethnicity in Settlement (20-40%)	0.328*	0.305	0.333*	0.342**	0.317	0.27	0.324*	0.306
Ethnicity in Settlement (40-60%)	0.478***	0.500***	0.497***		0.521***	0.434***		0.507***
Ethnicity in Settlement (60-80%)	0.525***	0.493***	0.527***		0.494***	0.540***		0.493***
Ethnicity in Settlement (>80%)	0.393***	0.415***	0.399***		0.425***	0.376***		0.421***
Marital Status	0.136**	0.056	0.135**	0.135**	0.055	0.138***	0.137***	0.057
Education	0.030***	-0.007	0.031***	0.031***	-0.007	0.030***	0.030***	-0.008
ln Household size	0.064	-0.229***	0.061	0.059	-0.234***	0.058	0.053	-0.237***
Religion: Orthodox (Omitted)		•						
Religion: Catholic	0.283**	0.425***	0.298**	0.299**	0.438***	0.267**	0.283**	0.425***
Religion: Islam	-0.102	-0.11	-0.1	-0.095	-0.105	-0.104	-0.112	-0.12
Religion: Atheist	0.101	0.113	0.107	0.103	0.113	0.108	0.092	0.106
Religion: Other	0.411**	0.304	0.405**	0.405**	0.3	0.411**	0.391**	0.292
Settlement type: Village								
Settlement type: Small town	0.118	0.136	0.092	0.072	0.097	0.273*	0.075	0.096
Settlement type: Regional center	0.08	0.069	0.081	0.081	0.073	0.434***	0.153*	0.127
Settlement type: Capital	-0.148	-0.086	-0.235	-0.244	-0.172	0.212	-0.197	-0.134
In Population in settlement	-0.005	-0.081**	0.005	0.007	-0.071**	-0.019	-0.001	-0.078**
Regional dummies	No	No	Yes	No	No	Yes	No	No
Cut-off 1	-4.693**	0.053	-2.812***		1.631	-2.241***	-2.363***	2.266**
Cut-off 2	-3.671	1.067	-1.788**	-1.926***	2.646**	-1.217**	-1.340**	3.280***
Cut-off 3	-2.648	2.077	-0.764	-0.902	3.657***	-0.193	-0.316	4.291***
Cut-off 4	-1.367	3.37	0.518	0.38	4.951***	1.089*	0.966*	5.584***
N	2538	2666	2538	2538	2666	2538	2538	2666

Table 27. Relative consumption and well-being in Macedonia: The Role of Reference Group

Dan and ant Vaniables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent Variable: Self-reported well-being	Reg	gion ¹		District ²			Settlemen	t ³
Seij-reporteu weu-veuig	Baseline	IV	Bas	seline	IV	Bas	seline	IV
In Household consumption	0.231***	1.966***	0.266***	0.263***	1.241***	0.255***	0.251***	1.170***
In Mean HHC in locality	-0.026	-1.497***	-0.181*	-0.167*	-0.014	-0.102	-0.097	0.101
House Owner	0.207***	0.031	0.226***	0.201***	0.077	0.228***	0.203***	0.087
Land Owner	0.147***	0.137***	0.147***	0.151***	0.148***	0.144***	0.148***	0.147***
Unemployed	-0.612***	-0.178**	-0.612***	-0.610***	-0.349***	-0.613***	-0.610***	-0.366***
Not in the Lobar Force	0.013	0.331***	0.014	0.013	0.206***	0.012	0.015	0.191**
Female	0.079	0.071	0.068	0.075	0.083*	0.069	0.077	0.085*
Age	-0.063***	-0.058***	-0.065***	-0.063***	-0.059***	-0.065***	-0.063***	-0.059***
Age Squared	0.065***	0.064***	0.066***	0.065***	0.063***	0.067***	0.065***	0.063***
Ethnicity in Settlement (<10%)								
Ethnicity in Settlement (10-20%)								
Ethnicity in Settlement (20-40%)	0.495***	0.378**	0.355**	0.522***	0.392**	0.340**	0.512***	0.375**
Ethnicity in Settlement (40-60%)	0.566***	0.574***	0.438***	0.581***	0.573***	0.427***	0.575***	0.561***
Ethnicity in Settlement (60-80%)	0.056	-0.037	0.356*	0.043	0.035	0.364*	0.051	0.043
Ethnicity in Settlement (>80%)	0.346***	0.250*	0.302**	0.355***	0.289**	0.296**	0.352***	0.285*
Marital Status	0.202***	0.019	0.185***	0.200***	0.076	0.187***	0.201***	0.082
Education	0.065***	-0.001	0.062***	0.063***	0.024**	0.063***	0.064***	0.027**
ln Household size	-0.007	-0.624***	-0.009	-0.02	-0.377***	-0.005	-0.016	-0.349***
Religion: Orthodox (Omitted)	•							
Religion: Catholic	0.145**	0.410***	0.085	0.146**	0.264***	0.09	0.146**	0.257***
Religion: Islam	•							
Religion: Atheist	-0.312	-0.079	-0.47	-0.298	-0.046	-0.48	-0.307	-0.054
Religion: Other	-0.711**	-0.868*	-0.807**	-0.715**	-0.836*	-0.806**	-0.711**	-0.848*
Settlement type: Village		•						
Settlement type: Small town	0.029	-0.061	0.03	-0.015	-0.024	0.063	0.012	-0.001
Settlement type: Regional center	-0.083	-0.258***	-0.053	-0.096	-0.180*	-0.04	-0.088	-0.167*
Settlement type: Capital	0.01	0.012	-0.093	-0.008	-0.06	-0.082	0.001	-0.047
In Population in settlement	-0.013	-0.099***	-0.004	-0.001	-0.062*	-0.008	-0.004	-0.069**
Regional dummies	No	No	Yes	No	No	Yes	No	No
Cut-off 1	-0.281	-1.223	-1.314*	-0.973	5.165***	-0.863	-0.573	5.476***
Cut-off 2	0.751	-0.139	-0.266	0.059	6.248***	0.185	0.459	6.559***
Cut-off 3	1.841	0.912	0.835	1.149*	7.293***	1.285**	1.549***	7.605***
Cut-off 4	3.282*	2.335	2.290***	2.593***	8.706***	2.738***	2.990***	9.018***
N	2026	2185	2026	2026	2184	2026	2026	2184

Table 28. Relative consumption and well-being in Serbia: The Role of Reference Group

D 1 4 W 1 1	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent Variable:	Reg	gion ¹		District ²			Settlemen	t ³
Self-reported well-being	Baseline	IV	Bas	seline	IV	Bas	seline	IV
In Household consumption	0.356***	1.066***	0.381***	0.364***	0.792***	0.392***	0.378***	0.785***
In Mean HHC in locality	-0.053	-0.546*	-0.25	-0.163	-0.027	-0.323**	-0.290**	-0.014
House Owner	0.327***	0.321***	0.349***	0.324***	0.341***	0.342***	0.317***	0.342***
Land Owner	0.226***	0.167***	0.243***	0.220***	0.173***	0.237***	0.212***	0.173***
Unemployed	-0.612***	-0.419***	-0.546***	-0.614***	-0.480***	-0.554***	-0.622***	-0.482***
Not in the Lobar Force	-0.054	0.095	-0.016	-0.059	0.049	-0.02	-0.065	0.048
Female	0.029	0.028	0.024	0.029	0.029	0.021	0.025	0.029
Age	-0.061***	-0.059***	-0.060***	-0.061***	-0.061***	-0.060***	-0.062***	-0.061***
Age Squared	0.055***	0.055***	0.053***	0.055***	0.056***	0.054***	0.056***	0.056***
Ethnicity in Settlement (<10%)		•						
Ethnicity in Settlement (10-20%)	0.128	0.186	0.038	0.134	0.182	0.036	0.134	0.182
Ethnicity in Settlement (20-40%)	0.244	0.260*	0.131	0.256	0.267*	0.129	0.259	0.266*
Ethnicity in Settlement (40-60%)	0.15	0.19	0.012	0.172	0.186	-0.003	0.166	0.183
Ethnicity in Settlement (60-80%)	0.018	0.075	-0.09	0.021	0.08	-0.093	0.02	0.08
Ethnicity in Settlement (>80%)	0.032	0.036	0.038	0.044	0.036	0.044	0.055	0.035
Marital Status	0.366***	0.265***	0.364***	0.361***	0.287***	0.361***	0.356***	0.288***
Education	0.058***	0.026*	0.061***	0.058***	0.036***	0.061***	0.059***	0.036***
ln Household size	-0.321***	-0.508***	-0.305***	-0.317***	-0.416***	-0.304***	-0.314***	-0.414***
Religion: Orthodox (Omitted)								
Religion: Catholic	0.314***	0.438***	0.138	0.311***	0.373***	0.144	0.316***	0.372***
Religion: Islam	-0.238*	-0.415***	-0.148	-0.237*	-0.410***	-0.16	-0.249*	-0.411***
Religion: Atheist	-0.508*	-0.573***	-0.592*	-0.505	-0.577***	-0.582*	-0.495	-0.577***
Religion: Other	-0.497***	-0.523***	-0.537***	-0.489***	-0.521***	-0.530***	-0.480***	-0.522***
Settlement type: Village								
Settlement type: Small town	0.015	-0.005	0.078	0.004	0.013	0.099	0.018	0.016
Settlement type: Regional center	-0.031	-0.13	0.134	-0.042	-0.062	0.169	-0.016	-0.058
Settlement type: Capital	-0.138	-0.184	0.108	-0.136	-0.248	0.127	-0.11	-0.247
<i>ln Population in settlement</i>	0.033	0.013	-0.01	0.037	0.021	-0.007	0.041	0.021
Regional dummies	No	No	Yes	No	No	Yes	No	No
Cut-off 1	0.501	1.171	-1.058	-0.172	3.186**	-1.473	-0.931	3.235**
Cut-off 2	1.588	2.226	0.051	0.914	4.240***	-0.362	0.158	4.289***
Cut-off 3	2.527	3.135*	1.007	1.854*	5.149***	0.595	1.098	5.198***
Cut-off 4	3.781**	4.375**	2.274*	3.109***	6.388***	1.861*	2.352***	6.437***
N	1967	2173	1967	1967	2173	1967	1967	2173

Table 29. Relative consumption and well-being in Tajikistan: The Role of Reference Group

D 1 177 111	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent Variable:	Res	gion ¹		District ²			Settlemen	t ³
Self-reported well-being	Baseline	IV	Bas	seline	IV	Bas	seline	IV
In Household consumption	0.102***	0.504***	0.137***	0.134***	0.350**	0.136***	0.134***	0.350**
In Mean HHC in locality	-0.268*	-0.392***	-0.165***	-0.173***	-0.148***	-0.134***	-0.144***	-0.127***
House Owner	0.310***	0.218**	0.287***	0.302***	0.229**	0.289***	0.303***	0.235***
Land Owner	-0.059	0.002	-0.035	-0.055	0.006	-0.035	-0.053	0.006
Unemployed	0.148*	0.203**	0.096	0.127	0.157*	0.099	0.129	0.160*
Not in the Lobar Force	0.101*	0.145**	0.08	0.089	0.116**	0.084	0.093*	0.118**
Female	-0.016	-0.003	-0.007	-0.01	0	-0.013	-0.015	0
Age	-0.022***	-0.027***	-0.021**	-0.021**	-0.027***	-0.021**	-0.021**	-0.028***
Age Squared	0.027***	0.033***	0.025***	0.025***	0.033***	0.025***	0.026***	0.033***
Ethnicity in Settlement (<10%)								•
Ethnicity in Settlement (10-20%)	0.152	0.095	0.148	0.169	0.101	0.146	0.165	0.088
Ethnicity in Settlement (20-40%)	0.128	0.104	0.176	0.16	0.141	0.161	0.147	0.127
Ethnicity in Settlement (40-60%)	0.03	0.008	0.033	0.038	0.016	0.025	0.031	0.007
Ethnicity in Settlement (60-80%)	0.14	0.077	0.136	0.147	0.088	0.129	0.139	0.088
Ethnicity in Settlement (>80%)	-0.024	-0.121	-0.031	-0.007	-0.097	-0.035	-0.011	-0.1
Marital Status	0.099	0.100*	0.09	0.1	0.115*	0.089	0.099	0.114*
Education	0.055***	0.034***	0.053***	0.054***	0.039***	0.054***	0.055***	0.040***
ln Household size	0.081	-0.069	0.086	0.058	-0.03	0.085	0.058	-0.03
Religion: Orthodox (Omitted)								
Religion: Catholic	-0.581	-0.642***	-0.745	-0.702	-0.782***	-0.712	-0.671	-0.762***
Religion: Islam	0.330*	0.374**	0.340*	0.330*	0.364**	0.326*	0.316*	0.348*
Religion: Atheist	-0.607	-0.841**	-0.566	-0.592	-0.828**	-0.562	-0.587	-0.820**
Religion: Other	0.159	0.109	0.126	0.129	0.109	0.124	0.125	0.103
Settlement type: Village								
Settlement type: Small town	0.005	0.017	0.007	0.003	0.02	-0.021	-0.024	-0.018
Settlement type: Regional center	-0.217*	-0.236**	-0.165	-0.2	-0.187	-0.209	-0.238*	-0.236**
Settlement type: Capital	-0.485***	-0.447***	0.213	-0.509***	-0.463***	0.238	-0.526***	-0.516***
In Population in settlement	0.076***	0.075***	0.084***	0.083***	0.085***	0.087***	0.085***	0.092***
Regional dummies	No	No	Yes	No	No	Yes	No	No
Cut-off 1	-1.349	-0.336	0.325	-0.484	0.569	0.578	-0.297	0.741
Cut-off 2	-0.496	0.487	1.182	0.371	1.395*	1.433**	0.556	1.566**
Cut-off 3	0.41	1.414*	2.091***	1.279***	2.323***	2.342***	1.463***	2.493***
Cut-off 4	1.869*	2.823***	3.558***	2.741***	3.733***	3.807***	2.925***	3.903***
N	2028	2448	2028	2028	2448	2028	2028	2444

Table 30. Relative consumption and well-being in Ukraine: The Role of Reference Group

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent Variable:		gion ¹	(0)	District ²	(0)	(0)	Settlemen	
Self-reported well-being	Baseline	IV	Ba	seline	IV	Ba	seline	IV
In Household consumption	0.079***		0.087***		-0.029	0.099***		0.129
In Mean HHC in locality	0.144	-0.052	0.354**	0.224**	0.236**	-0.01	0.027	0.069
House Owner	0.261**	0.204**	0.326***	0.259**	0.218**	0.328***	0.264***	0.213**
Land Owner	0.160***	0.175***	0.139***	0.165***	0.180***	0.130**	0.159***	0.174***
Unemployed	-0.464***		-0.434***	-0.465***	-0.477***	-0.434***	-0.463***	-0.442***
Not in the Lobar Force	-0.141**	-0.07	-0.131**	-0.136**	-0.112*	-0.140**	-0.138**	-0.086
Female	-0.083*	-0.091**	-0.076*	-0.084*	-0.092**	-0.075	-0.084*	-0.091**
Age	-0.044***	-0.049***	-0.044***	-0.044***	-0.050***	-0.045***	-0.044***	-0.050***
Age Squared	0.037***	0.041***	0.036***	0.036***	0.042***	0.037***	0.037***	0.041***
Ethnicity in Settlement (<10%)		•	•			•	ě	
Ethnicity in Settlement (10-20%)	-0.297	-0.24	-0.259	-0.306	-0.244	-0.248	-0.295	-0.237
Ethnicity in Settlement (20-40%)	-0.092	-0.065	0.005	-0.106	-0.067	0.012	-0.081	-0.066
Ethnicity in Settlement (40-60%)	-0.235*	-0.196	-0.133	-0.234*	-0.206	-0.155	-0.216*	-0.204
Ethnicity in Settlement (60-80%)	-0.214*	-0.202	-0.221	-0.222*	-0.209	-0.219	-0.204	-0.204
Ethnicity in Settlement (>80%)	-0.172	-0.131	-0.217*	-0.181	-0.148	-0.204	-0.17	-0.14
Marital Status	0.157***	0.144***	0.160***	0.155***	0.162***	0.165***	0.155***	0.151***
Education	0.019**	0.013	0.017**	0.019**	0.022**	0.018**	0.019**	0.017*
ln Household size	-0.108*	-0.145	-0.118**	-0.104*	-0.055	-0.124**	-0.106*	-0.11
Religion: Orthodox (Omitted)								
Religion: Catholic	0.006	0.083	-0.230*	0.011	0.066	-0.231*	0.006	0.074
Religion: Islam					•			
Religion: Atheist	-0.176***		-0.119*	-0.169***	-0.171***	-0.121*	-0.184***	-0.180***
Religion: Other	0.254***	0.255***	0.251***	0.256***	0.267***	0.250***	0.253***	0.258***
Settlement type: Village					•			
Settlement type: Small town	0.016	0.015	0.067	0.031	0.038	0.043	0.014	0.014
Settlement type: Regional center	0.240*	0.232*	0.274**	0.281**	0.298**	0.219	0.233*	0.238*
Settlement type: Capital	0.111	0.182	-0.111	0.134	0.197	-0.146	0.137	0.176
In Population in settlement	-0.034	-0.040*	-0.035	-0.040*	-0.033	-0.024	-0.036*	-0.038*
Regional dummies	No	No	Yes	No	No	Yes	No	No
Cut-off 1	-0.9	-1.530*	0.424	-0.463	-1.011	-1.940***	-1.697***	-1.295*
Cut-off 2	0.234	-0.404	1.579	0.67	0.115	-0.785	-0.564	-0.169
Cut-off 3	1.028	0.393	2.387**	1.466**	0.913	0.021	0.23	0.628
Cut-off 4	2.373***	1.748**	3.754***	2.814***	2.271***	1.383**	1.575***	1.984***
N	2423	2605	2423	2423	2605	2423	2423	2605

Table 31. Relative consumption, social exclusion, and well-being across countries: The Role of Reference Group

December 4 West 11	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent Variable:	Reg	gion ¹		District ²			Settlemen	t ³
Self-reported well-being	Baseline	IV		seline	IV	Bas	seline	IV
In Household consumption	0.125***	0.764***	0.145***	0.131***	0.537***	0.156***	0.146***	0.566***
In Mean HHC in locality	0.062	-0.350***	-0.102*	-0.035	-0.021	-0.146***		-0.066
Socially Excluded	-0.575***	-0.604***	-0.565***	-0.575***	-0.608***	-0.567***	-0.576***	-0.610***
House Owner	0.266***	0.213***		0.266***	0.227***	0.282***	0.264***	0.225***
Land Owner	0.146***	0.138***	0.155***	0.145***	0.140***	0.157***	0.146***	0.140***
Unemployed	-0.302***	-0.154***	-0.283***	-0.302***	-0.207***	-0.281***	-0.300***	-0.200***
Not in the Lobar Force	0.044	0.150***	0.053	0.044	0.111***	0.053	0.044	0.114***
Female	-0.032	-0.032	-0.03	-0.032	-0.03	-0.032	-0.033	-0.031
Age	-0.037***	-0.034***	-0.038***	-0.037***	-0.035***	-0.038***	-0.037***	-0.035***
Age Squared	0.036***	0.034***	0.037***	0.036***	0.035***	0.038***	0.036***	0.035***
Ethnicity in Settlement (<10%)								
Ethnicity in Settlement (10-20%)	-0.095	-0.102	-0.075	-0.092	-0.104	-0.077	-0.092	-0.104
Ethnicity in Settlement (20-40%)	0.121	0.091	0.091	0.127	0.091	0.088	0.131	0.091
Ethnicity in Settlement (40-60%)	0.009	0.002	0.018	0.012	-0.002	0.015	0.013	-0.002
Ethnicity in Settlement (60-80%)	-0.021	-0.056	-0.003	-0.02	-0.046	-0.006	-0.022	-0.048
Ethnicity in Settlement (>80%)	0.052	0.041	0.042	0.054	0.045	0.04	0.056	0.045
Marital Status	0.142***	0.084**	0.135***	0.142***	0.102***	0.135***		0.100***
Education	0.026***	-0.001	0.028***	0.026***	0.007	0.027***	0.026***	0.006
ln Household size	-0.145***	-0.362***	-0.110***	-0.146***	-0.285***	-0.112***	-0.149***	-0.294***
Religion: Orthodox (Omitted)			٠		•			
Religion: Catholic	0.193***		0.123*	0.195***	0.267***	0.123*	0.199***	0.273***
Religion: Islam	0.187***	0.249***	0.128*	0.185***	0.228***	0.129**	0.185***	0.229***
Religion: Atheist	-0.009	-0.012	0.017	-0.012	-0.004	0.018	-0.012	-0.003
Religion: Other	0.166*	0.152	0.128	0.166	0.162	0.126	0.164	0.16
Settlement type: Village					•			
Settlement type: Small town	0.021	0.01	0.008	0.018	0.014	0.009	0.017	0.013
Settlement type: Regional center	0.041	-0.027	0.005	0.035	0.007	0.013	0.04	0.009
Settlement type: Capital	0.037	0.048	0.053	0.044	0.021	0.062	0.048	0.023
In Population in settlement	-0.019	-0.049***	-0.008	-0.017	-0.040***	-0.004	-0.012	-0.038***
Regional dummies	No	No	Yes	No	No	Yes	No	No
Country dummy: Kazakhstan			٠		•			
Country dummy: Moldova	-0.099	-0.057	-0.217	-0.082	-0.101	-0.206	-0.067	-0.094
Country dummy: Macedonia		-0.548***	-0.674***	-0.289***	-0.641***		-0.232***	-0.627***
Country dummy: Serbia	-0.638***	-0.884***	-1.077***	-0.556***	-0.965***	-1.039***	-0.496***	-0.951***
Country dummy: Tajikistan	0.367***	0.492***	0.474**	0.401***	0.371***	0.479**	0.424***	0.382***
Country dummy: Ukraine		-0.804***	-0.370*	-0.701***	-0.913***	-0.371**	-0.665***	-0.903***
Cut-off 1	-1.221**	-0.792	-2.133***	-1.758***	0.134		-2.120***	0.023
Cut-off 2	-0.126	0.305	-1.016**	-0.663*	1.231**	-1.180***	-1.024***	1.120**
Cut-off 3	0.763	1.190*	-0.11	0.227	2.114***	-0.272	-0.134	2.004***
Cut-off 4	2.157***	2.582***	1.311***	1.621***	3.505***	1.149***	1.261***	3.394***
N	6133	6033	6133	6133	6033	6133	6133	6033

Table 32. Relative consumption, social exclusion, and well-being in Kazakhstan: The Role of Reference Group

December 4 West 11	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent Variable:	Reg	gion ¹		District ²			Settlemen	t ³
Self-reported well-being	Baseline	IV	Bas	seline	IV	Bas	seline	IV
In Household consumption	0.104**	1.359***	0.116*	0.114**	0.935***	0.136**	0.137**	0.978***
In Mean HHC in locality	0.247	-0.482*	0.034	0.031	-0.054	-0.072	-0.064	-0.104
Socially Excluded	-0.628***	-0.636***	-0.589***	-0.628***	-0.642***	-0.586***	-0.626***	-0.643***
House Owner	0.442***		0.431***	0.445***	0.396***	0.433***	0.449***	0.395***
Land Owner	0.219***	0.221***	0.264***	0.217***	0.227***	0.264***	0.216***	0.228***
Unemployed	-0.283**	-0.013	-0.271**	-0.282**	-0.106	-0.268**	-0.278**	-0.099
Not in the Lobar Force	0.043	0.231**	0.082	0.041	0.167*	0.083	0.042	0.172**
Female	-0.048	-0.058	-0.071	-0.043	-0.057	-0.071	-0.042	-0.058
Age	-0.018	-0.013	-0.019*	-0.019	-0.014	-0.019*	-0.019	-0.014
Age Squared	0.014	0.013	0.016	0.015	0.013	0.016	0.015	0.013
Ethnicity in Settlement (<10%)								
Ethnicity in Settlement (10-20%)	-0.258*	-0.224*	-0.181	-0.258*	-0.237*	-0.179	-0.256*	-0.235*
Ethnicity in Settlement (20-40%)	0.074	0.04	0.065	0.081	0.042	0.065	0.081	0.039
Ethnicity in Settlement (40-60%)	-0.242*	-0.210*	-0.265**	-0.267**	-0.198	-0.260*	-0.270**	-0.196
Ethnicity in Settlement (60-80%)	0.033	-0.028	-0.04	0.016	0.013	-0.031	0.018	0.014
Ethnicity in Settlement (>80%)	0.112	0.12	0.157	0.109	0.118	0.157	0.111	0.121
Marital Status	0.141*	0.025	0.112	0.142*	0.064	0.114	0.145*	0.065
Education	0.009	-0.039**	0.014	0.009	-0.025*	0.014	0.009	-0.026*
ln Household size	-0.330***	-0.758***	-0.233***	-0.333***	-0.619***	-0.236***	-0.336***	-0.632***
Religion: Orthodox (Omitted)								•
Religion: Catholic	1.089	1.275***	0.973***	1.07	1.225***	0.970***	1.062	1.228***
Religion: Islam	0.264***		0.254***	0.271***	0.354***	0.250***	0.269***	0.355***
Religion: Atheist	0.199	0.189	0.168	0.197	0.195	0.168	0.197	0.196
Religion: Other	0.108	0.033	0.194	0.103	0.067	0.194	0.104	0.065
Settlement type: Village	•		•	•			•	
Settlement type: Small town	-0.01	-0.039	-0.073	-0.021	-0.034	-0.074	-0.026	-0.043
Settlement type: Regional center	0.108	-0.022	-0.032	0.092	0.026	-0.022	0.093	0.022
Settlement type: Capital	0.018	0.082	-0.284	0.019	0.049	-0.251	0.038	0.057
In Population in settlement	-0.013	-0.074**	0.023	-0.009	-0.054*	0.027	-0.003	-0.052*
Regional dummies	No	No	Yes	No	No	Yes	No	No
Cut-off 1	-0.144	1.257	-1.149	-1.381**	1.866*	-1.629**	-1.766***	1.809*
Cut-off 2	1.178	2.600**	0.189	-0.059	3.208***	-0.29	-0.443	3.151***
Cut-off 3	1.944*	3.370***	0.968	0.706	3.977***	0.49	0.322	3.921***
Cut-off 4	3.388***	4.830***	2.447***	2.148***	5.433***	1.968***	1.764***	5.377***
N	1247	1250	1247	1247	1250	1247	1247	1250

Table 33. Relative consumption, social exclusion, and well-being in Moldova: The Role of Reference Group

B 1 (W 11)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent Variable: Self-reported well-being	Re	gion ¹		District ²			Settlemen	t ³
Seij-reported well-being	Baseline	IV	Ba	seline	IV	Bas	seline	IV
In Household consumption	0.025	0.401	0.038	0.039	0.381	0.044	0.047	0.427
In Mean HHC in locality	-1.797***	-1.842***	-0.224	-0.340*	-0.327*	-0.253*	-0.302**	-0.292**
Socially Excluded	-0.521***	-0.523***	-0.521***	-0.507***	-0.518***	-0.534***	-0.525***	-0.539***
House Owner	0.290**	0.272**	0.279**	0.303**	0.288**	0.275**	0.304**	0.287**
Land Owner	0.045	0.051	0.058	0.08	0.087	0.066	0.098	0.105
Unemployed	-0.278**	-0.183	-0.271**	-0.290**	-0.2	-0.261*	-0.278**	-0.178
Not in the Lobar Force	0.152*	0.224**	0.150*	0.154*	0.222**	0.151*	0.156*	0.231**
Female	-0.138**	-0.144**	-0.132*	-0.127*	-0.132*	-0.139**	-0.134*	-0.139**
Age	-0.032**	-0.029**	-0.030**	-0.034**	-0.031**	-0.030**	-0.035**	-0.031**
Age Squared	0.028*	0.025	0.026	0.030*	0.027*	0.026	0.031*	0.027*
Ethnicity in Settlement (<10%)	٠			•			•	•
Ethnicity in Settlement (10-20%)	0.05	0.05	0.039	0.076	0.081	0.016	0.05	0.058
Ethnicity in Settlement (20-40%)	0.136	0.113	0.16	0.229	0.204	0.111	0.175	0.148
Ethnicity in Settlement (40-60%)	0.211	0.216	0.245	0.279	0.285	0.207	0.237	0.244
Ethnicity in Settlement (60-80%)	0.446**	0.423*	0.444*	0.450**	0.428*	0.423*	0.416**	0.394
Ethnicity in Settlement (>80%)	0.226	0.215	0.296	0.277	0.269	0.264	0.252	0.245
Marital Status	0.135	0.109	0.122	0.142	0.118	0.118	0.138	0.111
Education	0.014	-0.002	0.015	0.014	-0.001	0.015	0.013	-0.003
ln Household size	0.148	0.022	0.153*	0.119	0.003	0.141	0.105	-0.024
Religion: Orthodox (Omitted)		•						•
Religion: Catholic	0.399**	0.474**	0.407**	0.429***	0.499**	0.398**	0.415**	0.493**
Religion: Islam			•			•		
Religion: Atheist	0.579*	0.576**	0.569**	0.521	0.519**	0.547**	0.486	0.485**
Religion: Other	0.139	0.151	0.132	0.112	0.124	0.131	0.114	0.127
Settlement type: Village			•			•	•	
Settlement type: Small town	0.154	0.157	0.078	-0.029	-0.029	0.123	-0.01	-0.01
Settlement type: Regional center	-0.056	-0.074	-0.043	-0.016	-0.025	0.032	0.099	0.085
Settlement type: Capital	0.013	0.003	-0.065	-0.271	-0.28	0.035	-0.178	-0.192
In Population in settlement	0.014	-0.009	0.019	0.027	0.005	0.018	0.019	-0.005
Regional dummies	No	No	Yes	No	No	Yes	No	No
Cut-off 1	-12.64***		-2.429*	-3.312***	-1.647	-2.539**	-3.128***	-1.3
Cut-off 2	-11.63***	-10.16**	-1.423	-2.313**	-0.648	-1.53	-2.127**	-0.299
Cut-off 3	-10.62***	-9.18**	-0.408	-1.3	0.366	-0.514	-1.113	0.716
Cut-off 4	-9.20**	-7.726*	1.021	0.117	1.783	0.914	0.303	2.132
N	986	986	986	986	986	986	986	986

Table 34. Relative consumption, social exclusion and well-being in Macedonia: The Role of Reference Group

December 4 West 11	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent Variable: Self-reported well-being	Reg	gion ¹		District ²			Settlemen	t ³
Seij-reporteu weu-veuig	Baseline	IV	Ba	seline	IV	Bas	seline	IV
In Household consumption	0.300***	2.195***	0.319***	0.328***	1.427***	0.320***	0.327***	1.414***
ln Mean HHC in locality ¹	-0.004	-1.704***	-0.120	-0.137	0.073	-0.111	-0.121	0.102
Socially Excluded	-1.016***	-1.069***	-0.973***	-1.014***	-1.056***	-0.972***	-1.012***	-1.055***
House Owner	0.190*	0.017	0.213**	0.189*	0.047	0.212**	0.189*	0.048
Land Owner	0.125	0.07	0.124	0.131	0.075	0.124	0.131	0.074
Unemployed	-0.443***	0.022	-0.464***	-0.440***	-0.16	-0.463***	-0.438***	-0.164
Not in the Lobar Force	0.073	0.450***	0.081	0.073	0.326**	0.081	0.074	0.323**
Female	0.077	0.117	0.064	0.072	0.134*	0.066	0.075	0.133*
Age	-0.066***	-0.062***	-0.068***	-0.065***	-0.066***	-0.068***	-0.066***	-0.067***
Age Squared	0.069***	0.070***	0.070***	0.068***	0.072***	0.070***	0.068***	0.072***
Ethnicity in Settlement (<10%)								
Ethnicity in Settlement (10-20%)	0.22			0.256			0.25	
Ethnicity in Settlement (20-40%)		0.037	0.051		0.065	0.045		0.062
Ethnicity in Settlement (40-60%)	0.146	0.184	0.016	0.16	0.198	0.014	0.159	0.195
Ethnicity in Settlement (60-80%)	-0.077	-0.198	0.211	-0.079	-0.099	0.211	-0.079	-0.098
Ethnicity in Settlement (>80%)	-0.125	-0.157	-0.153	-0.115	-0.103	-0.155	-0.117	-0.105
Marital Status	0.226**	0.059	0.222**	0.223**	0.125	0.222**	0.224**	0.127
Education	0.045***	-0.033	0.043***	0.043***	-0.004	0.043***	0.044***	-0.004
ln Household size	-0.294***	-0.975***	-0.302***	-0.305***	-0.706***	-0.302***	-0.303***	-0.701***
Religion: Orthodox (Omitted)	•							
Religion: Catholic	0.153	0.481***	0.058	0.155	0.319***	0.059	0.157	0.315***
Religion: Islam	•							
Religion: Atheist	-0.416	-0.366	-0.501	-0.407	-0.343	-0.51	-0.418	-0.341
Religion: Other	-0.224	-0.065	-0.392	-0.238	-0.176	-0.39	-0.235	-0.182
Settlement type: Village								
Settlement type: Small town	0.1	0.051	0.127	0.06	0.114	0.142	0.075	0.114
Settlement type: Regional center	0.106	-0.153	0.156	0.091	-0.062	0.161	0.094	-0.059
Settlement type: Capital	0.192	0.185	0.213	0.177	0.101	0.217	0.181	0.105
In Population in settlement	-0.079	-0.150***	-0.082	-0.067	-0.119**	-0.082	-0.067	-0.123**
Regional dummies	No	No	Yes	No	No	Yes	No	No
Cut-off 1	-1.366	-2.853	-2.255**	-2.009**	5.258***	-2.173**	-1.886**	5.331***
Cut-off 2	-0.29	-1.766	-1.165	-0.935	6.342***	-1.083	-0.811	6.414***
Cut-off 3	0.787	-0.711	-0.081	0.143	7.389***	0.001	0.267	7.462***
Cut-off 4	2.202	0.685	1.352	1.561*	8.776***	1.434	1.684*	8.849***
N	882	842	882	882	842	882	882	842

Table 35. Relative consumption, social exclusion, and well-being in Serbia: The Role of Reference Group

B 1 (W 11)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent Variable:	Re	gion ¹		District ²			Settlemen	t ³
Self-reported well-being	Baseline	IV	Ba	seline	IV	Baseline		IV
In Household consumption	0.317***	1.056**	0.328***	0.322***	0.846**	0.336***	0.333***	0.856**
In Mean HHC in locality	0.03	-0.438	-0.175	-0.08	-0.061	-0.271	-0.229	-0.085
Socially Excluded	-0.707***	-0.810***	-0.691***	-0.705***	-0.814***	-0.693***	-0.705***	-0.815***
House Owner	0.249**	0.212*	0.264**	0.247**	0.227**	0.263**	0.243**	0.227**
Land Owner	0.365***	0.338***	0.383***	0.359***	0.344***	0.377***	0.349***	0.342***
Unemployed	-0.481***	-0.292**	-0.465***	-0.484***	-0.336**	-0.472***	-0.493***	-0.337**
Not in the Lobar Force	0.023	0.137	0.006	0.02	0.102	-0.003	0.01	0.1
Female	0.068	0.086	0.063	0.069	0.085	0.06	0.067	0.084
Age	-0.067***	-0.066***	-0.066***	-0.067***	-0.068***	-0.067***	-0.068***	-0.068***
Age Squared	0.059***	0.061***	0.059***	0.059***	0.063***	0.060***	0.061***	0.063***
Ethnicity in Settlement (<10%)								
Ethnicity in Settlement (10-20%)	0.441	0.383	0.286	0.448	0.39	0.285	0.452	0.386
Ethnicity in Settlement (20-40%)	0.489**	0.475**	0.375*	0.494**	0.486**	0.375*	0.498**	0.485**
Ethnicity in Settlement (40-60%)	0.316	0.174	0.116	0.324	0.174	0.096	0.313	0.168
Ethnicity in Settlement (60-80%)	-0.076	-0.201	-0.215	-0.08	-0.202	-0.222	-0.089	-0.204
Ethnicity in Settlement (>80%)	0.072	-0.009	-0.016	0.076	-0.006	-0.01	0.085	-0.005
Marital Status	0.434***	0.310***	0.427***	0.431***	0.327***	0.424***	0.427***	0.325***
Education	0.036***	0	0.039***	0.036***	0.008	0.039***	0.036***	0.007
ln Household size	-0.479***	-0.707***	-0.422***	-0.477***	-0.633***	-0.419***	-0.472***	-0.634***
Religion: Orthodox (Omitted)		•	•					•
Religion: Catholic	0.21	0.413**	0.17	0.21	0.362**	0.181	0.219	0.367**
Religion: Islam	0.031	0.052	-0.023	0.028	0.059	-0.034	0.015	0.054
Religion: Atheist	-0.448	-0.436	-0.522	-0.448	-0.43	-0.513	-0.441	-0.427
Religion: Other	-0.279	-0.31	-0.294	-0.274	-0.308	-0.295	-0.27	-0.309
Settlement type: Village		•	•					•
Settlement type: Small town	0.123	0.119	0.212*	0.112	0.133	0.224*	0.113	0.139
Settlement type: Regional center	0.151	0.044	0.298	0.134	0.097	0.319*	0.136	0.103
Settlement type: Capital	0.098	0.084	0.189	0.103	0.041	0.191	0.111	0.045
In Population in settlement	-0.003	-0.033	-0.044	0.001	-0.028	-0.04	0.008	-0.027
Regional dummies	No	No	Yes	No	No	Yes	No	No
Cut-off 1	-0.103	0.623	-2.022	-0.808	2.03	-2.630*	-1.729	1.923
Cut-off 2	1.035	1.739	-0.861	0.329	3.146	-1.467	-0.591	3.039
Cut-off 3	2.068	2.759	0.195	1.363	4.166**	-0.411	0.443	4.059*
Cut-off 4	3.415	4.091	1.557	2.710**	5.496***	0.951	1.791	5.390**
N	992	941	992	992	941	992	992	941

Table 36. Relative consumption, social exclusion, and well-being in Tajikistan: The Role of Reference Group

D	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent Variable: Self-reported well-being	Reg	gion ¹		District ²			Settlemen	t ³
Self-reported well-being	Baseline	IV	Bas	seline	IV	Bas	seline	IV
In Household consumption	0.078*	0.051	0.127**	0.124**	-0.417	0.132**	0.131**	-0.394
ln Mean HHC in locality ¹	-0.849***	-0.836***	-0.220**	-0.221***	-0.122	-0.220***	-0.226***	-0.115
Socially Excluded	-0.424***	-0.437***	-0.459***	-0.440***	-0.464***	-0.469***	-0.451***	-0.468***
House Owner	0.277*	0.275*	0.274*	0.257*	0.287*	0.277*	0.257*	0.286*
Land Owner	-0.001	0.013	0.011	-0.004	0.016	0.018	0.009	0.021
Unemployed	0.250**	0.219	0.265**	0.233*	0.122	0.270**	0.239*	0.128
Not in the Lobar Force	0.236***	0.213**	0.228**	0.220**	0.131	0.234***	0.227**	0.138
Female	-0.074	-0.062	-0.057	-0.058	-0.049	-0.062	-0.06	-0.05
Age	-0.024	-0.024	-0.024	-0.021	-0.024	-0.024	-0.021	-0.024
Age Squared	0.035**	0.036**	0.036**	0.032**	0.036**	0.035**	0.032**	0.036**
Ethnicity in Settlement (<10%)								
Ethnicity in Settlement (10-20%)	-0.17	-0.182	-0.101	-0.143	-0.189	-0.106	-0.147	-0.194
Ethnicity in Settlement (20-40%)	-0.348*	-0.358*	-0.327*	-0.296	-0.317	-0.337*	-0.306	-0.324
Ethnicity in Settlement (40-60%)	0.288*	0.297*	0.328**	0.301*	0.275*	0.312*	0.286*	0.268*
Ethnicity in Settlement (60-80%)	-0.037	-0.038	0.036	-0.046	-0.042	0.028	-0.058	-0.049
Ethnicity in Settlement (>80%)	-0.038	-0.022	0.025	-0.008	-0.004	0.023	-0.009	-0.006
Marital Status	0.061	0.074	0.034	0.047	0.101	0.034	0.047	0.099
Education	0.043***	0.041*	0.045***	0.044***	0.061***	0.046***	0.045***	0.060***
ln Household size	0.166*	0.166	0.14	0.122	0.330**	0.131	0.118	0.320**
Religion: Orthodox (Omitted)								
Religion: Catholic								
Religion: Islam	0.292	0.255	0.289	0.321	0.226	0.258	0.287	0.211
Religion: Atheist	-0.512	-0.55	-0.507	-0.477	-0.506	-0.531	-0.502	-0.52
Religion: Other	0.987	0.969***	1.025	0.868	0.882**	0.994	0.839	0.867**
Settlement type: Village			٠					
Settlement type: Small town	0.129	0.104	0.137	0.099	0.099	0.087	0.057	0.076
Settlement type: Regional center	-0.168	-0.184	-0.121	-0.112	-0.081	-0.192	-0.172	-0.114
Settlement type: Capital	-0.453*	-0.464*	0.781	-0.520**	-0.538*	0.837	-0.559**	-0.556**
In Population in settlement	0.05	0.054	0.046	0.062*	0.082**	0.056	0.070**	0.084**
Regional dummies	No	No	Yes	No	No	Yes	No	No
Cut-off 1	-5.614***	-5.662***	0	-1.104	-3.121**	0.198	-1.063	-2.950**
Cut-off 2	-4.791***	-4.844***	0.83	-0.284	-2.306	1.028	-0.244	-2.136
Cut-off 3	-3.896**	-3.951**	1.733*	0.605	-1.419	1.932*	0.647	-1.248
Cut-off 4	-2.352	-2.415	3.293***	2.145***	0.111	3.493***	2.188***	0.283
N	846	837	846	846	837	846	846	837

Table 37. Relative consumption, social exclusion, and well-being in Ukraine: The Role of Reference Group

B 1 (W 11)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent Variable: Self-reported well-being	Reg	gion ¹		District ²			Settlemen	t ³
Seij-reporteu weu-veuig	Baseline	IV	Bas	seline	IV	Ba	seline	IV
In Household consumption	-0.022	0.02	0.015	-0.039	-0.042	0.014	-0.038	0.331
In Mean HHC in locality	0.495***	0.472	0.572***	0.518***	0.519***	0.138	0.190*	0.106
Socially Excluded	-0.735***	-0.727***	-0.704***	-0.733***	-0.721***	-0.716***	-0.752***	-0.735***
House Owner	0.158	0.152	0.247	0.16	0.157	0.257	0.171	0.134
Land Owner	0.078	0.077	0.079	0.095	0.092	0.058	0.081	0.079
Unemployed	-0.354**	-0.349**	-0.327**	-0.349**	-0.357**	-0.332**	-0.358***	-0.278*
Not in the Lobar Force	-0.098	-0.09	-0.078	-0.089	-0.09	-0.083	-0.083	-0.022
Female	-0.081	-0.083	-0.074	-0.085	-0.086	-0.068	-0.086	-0.085
Age	-0.042***	-0.042***	-0.039***	-0.041***	-0.041***	-0.040***	-0.039***	-0.039***
Age Squared	0.039***	0.039***	0.035***	0.037***	0.037***	0.037***	0.035***	0.036***
Ethnicity in Settlement (<10%)								
Ethnicity in Settlement (10-20%)	0.115	0.136	0.211	0.082	0.107	0.254	0.11	0.123
Ethnicity in Settlement (20-40%)	-0.259	-0.233	-0.188	-0.283	-0.253	-0.17	-0.253	-0.24
Ethnicity in Settlement (40-60%)	-0.265	-0.23	-0.057	-0.227	-0.186	-0.102	-0.192	-0.18
Ethnicity in Settlement (60-80%)	-0.271	-0.243	-0.236	-0.283	-0.253	-0.229	-0.237	-0.229
Ethnicity in Settlement (>80%)	-0.118	-0.085	-0.15	-0.128	-0.093	-0.14	-0.1	-0.06
Marital Status	0.166**	0.159*	0.148*	0.157**	0.151*	0.157**	0.156**	0.127
Education	0.017	0.016	0.014	0.017	0.018	0.016	0.018	0.005
ln Household size	-0.140*	-0.15	-0.191**	-0.143*	-0.137	-0.190**	-0.150*	-0.263**
Religion: Orthodox (Omitted)			٠					
Religion: Catholic	0.025	0.024	-0.205	0.044	0.037	-0.186	0.015	0.038
Religion: Islam						•		
Religion: Atheist	-0.062	-0.062	-0.01	-0.06	-0.059	-0.014	-0.083	-0.078
Religion: Other	0.123	0.129	0.103	0.133	0.143	0.096	0.128	0.118
Settlement type: Village						•		
Settlement type: Small town	-0.174	-0.173	-0.126	-0.134	-0.132	-0.174	-0.164	-0.177
Settlement type: Regional center	-0.132	-0.122	-0.083	-0.04	-0.023	-0.181	-0.123	-0.14
Settlement type: Capital	-0.378	-0.368	-0.708**	-0.283	-0.27	-0.773***	-0.258	-0.296
In Population in settlement	-0.007	-0.011	-0.014	-0.023	-0.025	-0.007	-0.023	-0.037
Regional dummies	No	No	Yes	No	No	Yes	No	No
Cut-off 1	0.679	0.759	1.152	0.626	0.634	-1.838**	-1.553**	-0.155
Cut-off 2	1.924	2.003	2.425*	1.871*	1.878	-0.567	-0.312	1.086
Cut-off 3	2.741**	2.820**	3.268**	2.694***	2.700**	0.271	0.504	1.903*
Cut-off 4	4.089***	4.167***	4.670***	4.050***	4.057***	1.665**	1.855**	3.253***
N	1180	1177	1180	1180	1177	1180	1180	1177

Table 38. Relative social exclusion and well-being across countries

Dependent Variable:	(1)	(2)	(3)	(4)	(5)	(6)	
Self-reported well-being		Baseline		IV for Household Consumption			
ln Household consumption	0.177***	0.145***	0.143***	0.521***	0.537***	0.484***	
n Mean HHC in locality ¹	-0.127***	-0.102*	-0.167***	-0.088***	-0.021	-0.083	
Socially Excluded		-0.565***	-0.550***		-0.608***	-0.583***	
Relative Social Exclusion ²	-	•	-0.004	•		-0.004*	
House Owner	0.319***	0.283***	0.300***	0.254***	0.227***	0.236***	
Land Owner	0.136***	0.155***	0.164***	0.145***	0.140***	0.155***	
Unemployed	-0.412***	-0.283***	-0.273***	-0.331***	-0.207***	-0.210***	
Not in the Lobar Force	-0.062***	0.053	0.054	-0.011	0.111***	0.108***	
Female	-0.014	-0.03	-0.032	-0.019	-0.03	-0.035	
1ge	-0.045***	-0.038***	-0.040***	-0.044***	-0.035***	-0.036***	
Age Squared	0.043***	0.037***	0.038***	0.043***	0.035***	0.035***	
Ethnicity in Settlement (<10%)	-	•	-	•		•	
Ethnicity in Settlement (10-20%)	-0.019	-0.075	-0.067	-0.037	-0.104	-0.104	
Ethnicity in Settlement (20-40%)	0.117**	0.091	0.079	0.145***	0.091	0.08	
Ethnicity in Settlement (40-60%)	0.027	0.018	0.027	0.068	-0.002	-0.008	
Ethnicity in Settlement (60-80%)	0.067	-0.003	0.002	0.077*	-0.046	-0.058	
Ethnicity in Settlement (>80%)	0.048	0.042	0.082	0.062	0.045	0.07	
Marital Status	0.152***	0.135***	0.130***	0.123***	0.102***	0.097***	
Education	0.043***	0.028***	0.022***	0.026***	0.007	0.005	
n Household size	-0.055**	-0.110***	-0.105***	-0.201***	-0.285***	-0.258***	
Religion: Orthodox (Omitted)				•			
Religion: Catholic	0.087*	0.123*	0.129	0.240***	0.267***	0.256***	
Religion: Islam	0.105**	0.128*	0.129*	0.069	0.228***	0.221***	
Religion: Atheist	-0.109**	0.017	0.024	-0.129***	-0.004	0.005	
Religion: Other	0.104	0.128	0.135	0.108*	0.162	0.182*	
Settlement type: Village				•			
Settlement type: Small town	0.034	0.008	-0.003	0.042	0.014	0.011	
Settlement type: Regional center	0.056	0.005	0.001	0.053	0.007	-0.007	
Settlement type: Capital	-0.019	0.053	0.071	-0.008	0.021	-0.03	
n Population in settlement	0.011	-0.008	-0.005	-0.015*	-0.040***	-0.028**	
Country dummy: Kazakhstan							
Country dummy: Moldova	-0.184*	-0.217	-0.164	-0.188***	-0.101	-0.057	
Country dummy: Macedonia	-0.633***	-0.674***	-0.702***	-0.545***	-0.641***	-0.568***	
Country dummy: Serbia	-0.874***	-1.077***	-1.038***	-0.820***	-0.965***	-0.875***	
Country dummy: Tajikistan	0.318**	0.474**	0.764***	0.319***	0.371***	0.473***	
Country dummy: Ukraine	-0.433***	-0.370*	-0.344*	-0.816***	-0.913***	-0.850***	
Cut-off 1	-1.548***	-2.133***	-2.607***	0.192	0.134	-0.486	
Cut-off 2	-0.490*	-1.016**	-1.488***	1.220***	1.231**	0.612	
Cut-off 3	0.412	-0.11	-0.581	2.097***	2.114***	1.495***	
Cut-off 4	1.774***	1.311***	0.829*	3.424***	3.505***	2.875***	
N	13466	6133	5670	14729	6033	5578	

Table 39. Relative social exclusion and well-being in Kazakhstan

Dependent Variable: Self-reported well-being	(1)	(2)	(3)	(4)	(5)	(6)	
sey reported well being		Baseline		IV for Household Consumption			
ln Household consumption	0.233***	0.116*	0.101	0.495***	0.935***	0.946***	
In Mean HHC in locality ¹	-0.019	0.034	-0.011	0.017	-0.054	-0.218	
Socially Excluded		-0.589***	-0.611***		-0.642***	-0.631***	
Relative Social Exclusion ²			0.005			0.001	
House Owner	0.445***	0.431***	0.553***	0.376***	0.396***	0.464***	
Land Owner	0.248***	0.264***	0.271***	0.255***	0.227***	0.241***	
Unemployed	-0.416***	-0.271**	-0.334**	-0.346***	-0.106	-0.169	
Not in the Lobar Force	-0.118**	0.082	0.037	-0.135**	0.167*	0.146	
Female	-0.075	-0.071	-0.067	-0.072	-0.057	-0.047	
Age	-0.044***	-0.019*	-0.035***	-0.043***	-0.014	-0.027**	
Age Squared	0.046***	0.016	0.032**	0.045***	0.013	0.026**	
Ethnicity in Settlement (<10%)						•	
Ethnicity in Settlement (10-20%)	-0.167*	-0.181	-0.111	-0.191**	-0.237*	-0.204	
Ethnicity in Settlement (20-40%)	-0.153	0.065	0.141	-0.062	0.042	0.087	
Ethnicity in Settlement (40-60%)	-0.347***	-0.265**	-0.233	-0.208**	-0.198	-0.187	
Ethnicity in Settlement (60-80%)	-0.241**	-0.04	-0.034	-0.039	0.013	-0.005	
Ethnicity in Settlement (>80%)	-0.073	0.157	0.305**	-0.177**	0.118	0.211	
Marital Status	0.148***	0.112	0.127	0.129**	0.064	0.064	
Education	0.040***	0.014	0.005	0.021**	-0.025*	-0.031*	
ln Household size	-0.141***	-0.233***	-0.274***	-0.315***	-0.619***	-0.657***	
Religion: Orthodox (Omitted)							
Religion: Catholic	0.084	0.973***	1.012***	0.19	1.225***	1.322***	
Religion: Islam	0.254***	0.254***	0.309***	0.238***	0.354***	0.404***	
Religion: Atheist	-0.017	0.168	0.182	0.029	0.195	0.217	
Religion: Other	0.185	0.194	0.165	0.056	0.067	0.078	
Settlement type: Village							
Settlement type: Small town	0.01	-0.073	-0.109	0.106	-0.034	-0.089	
Settlement type: Regional center	0.146	-0.032	-0.08	0.246**	0.026	-0.036	
Settlement type: Capital	0.108	-0.284	-0.417	0.264*	0.049	-0.024	
In Population in settlement	0.021	0.023	0.064*	-0.033	-0.054*	-0.013	
Cut-off 1	-0.482	-1.149	-1.457	0.514	1.866*	1.045	
Cut-off 2	0.674	0.189	-0.088	1.621**	3.208***	2.406**	
Cut-off 3	1.448**	0.968	0.696	2.360***	3.977***	3.181***	
Cut-off 4	2.865***	2.447***	2.195**	3.719***	5.433***	4.657***	
N	2484	1247	1075	2653	1250	1075	

Table 40. Relative social exclusion and well-being in Moldova

Dependent Variable: Self-reported well-being	(1)	(2)	(3)	(4)	(5)	(6)	
and repetition were coming	-	Baseline		IV for Household Consumption			
In Household consumption	0.094***	0.038	0.048	1.033***	0.381	0.278	
In Mean HHC in locality ¹	-0.292**	-0.224	-0.266	-0.266**	-0.327*	-0.332*	
Socially Excluded		-0.521***	-0.485***		-0.518***	-0.495***	
Relative Social Position ²			-0.017***			-0.011*	
House Owner	0.335***	0.279**	0.257*	0.253***	0.288**	0.274**	
Land Owner	0.062	0.058	0.056	0.051	0.087	0.096	
Unemployed	-0.338***	-0.271**	-0.279**	-0.082	-0.2	-0.228	
Not in the Lobar Force	-0.065	0.150*	0.144*	0.137**	0.222**	0.199**	
Female	0.015	-0.132*	-0.138**	0.012	-0.132*	-0.136**	
4ge	-0.049***	-0.030**	-0.031**	-0.040***	-0.031**	-0.032**	
Age Squared	0.043***	0.026	0.027*	0.036***	0.027*	0.028*	
Ethnicity in Settlement (<10%)							
Ethnicity in Settlement (10-20%)	0.142	0.039	-0.033	0.146	0.081	0.036	
Ethnicity in Settlement (20-40%)	0.333	0.16	0.121	0.317	0.204	0.182	
Ethnicity in Settlement (40-60%)	0.497***	0.245	0.204	0.521***	0.285	0.256	
Ethnicity in Settlement (60-80%)	0.527***	0.444*	0.379	0.494***	0.428*	0.383	
Ethnicity in Settlement (>80%)	0.399***	0.296	0.29	0.425***	0.269	0.269	
Marital Status	0.135**	0.122	0.122	0.055	0.118	0.127	
Education	0.031***	0.015	0.015	-0.007	-0.001	0.003	
n Household size	0.061	0.153*	0.148	-0.234***	0.003	0.038	
Religion: Orthodox (Omitted)							
Religion: Catholic	0.298**	0.407**	0.401**	0.438***	0.499**	0.477**	
Religion: Islam	-0.1	0	0	-0.105	0	0	
Religion: Atheist	0.107	0.569**	0.561**	0.113	0.519**	0.531**	
Religion: Other	0.405**	0.132	0.122	0.3	0.124	0.125	
Settlement type: Village							
Settlement type: Small town	0.092	0.078	0.037	0.097	-0.029	-0.061	
Settlement type: Regional center	0.081	-0.043	0.022	0.073	-0.025	0.051	
Settlement type: Capital	-0.235	-0.065	0.075	-0.172	-0.28	-0.237	
n Population in settlement	0.005	0.019	-0.016	-0.071**	0.005	-0.018	
Cut-off 1	-2.812***	-2.429*	-3.087**	1.631	-1.647	-2.606	
Cut-off 2	-1.788**	-1.423	-2.081	2.646**	-0.648	-1.609	
Cut-off 3	-0.764	-0.408	-1.058	3.657***	0.366	-0.59	
Cut-off 4	0.518	1.021	0.375	4.951***	1.783	0.83	
N	2538	986	984	2666	986	984	

Table 41. Relative social exclusion and well-being in Macedonia

Dependent Variable: Self-reported well-being	(1)	(2)	(3)	(4)	(5)	(6)	
and top the same		Baseline	:	IV for Household Consumption			
In Household consumption	0.266***	0.319***	0.378***	1.241***	1.427***	1.356***	
n Mean HHC in locality ¹	-0.181*	-0.12	-0.228	-0.014	0.073	0.098	
Socially Excluded		-0.973***	-0.973***		-1.056***	-1.073***	
Relative Social Exclusion ²			-0.013		•	-0.018	
House Owner	0.226***	0.213**	0.240**	0.077	0.047	0.094	
Land Owner	0.147***	0.124	0.192**	0.148***	0.075	0.145	
Unemployed	-0.612***	-0.464***	-0.398***	-0.349***	-0.16	-0.121	
Not in the Lobar Force	0.014	0.081	0.198	0.206***	0.326**	0.403***	
Female	0.068	0.064	0.071	0.083*	0.134*	0.133	
4ge	-0.065***	-0.068***	-0.057**	-0.059***	-0.066***	-0.052**	
Age Squared	0.066***	0.070***	0.055**	0.063***	0.072***	0.054**	
Ethnicity in Settlement (<10%)							
Ethnicity in Settlement (10-20%)		•			•		
Ethnicity in Settlement (20-40%)	0.355*	0.051	0.087	0.392**	0.065	-0.054	
Ethnicity in Settlement (40-60%)	0.438***	0.016	-0.029	0.573***	0.198	0.161	
Ethnicity in Settlement (60-80%)	0.356	0.211	0.454	0.035	-0.099	-0.019	
Ethnicity in Settlement (>80%)	0.302**	-0.153	-0.09	0.289**	-0.103	-0.1	
Marital Status	0.185***	0.222**	0.155	0.076	0.125	0.064	
Education	0.062***	0.043***	0.023	0.024**	-0.004	-0.014	
n Household size	-0.009	-0.302***	-0.327***	-0.377***	-0.706***	-0.658***	
Religion: Orthodox (Omitted)			•				
Religion: Catholic	0.085	0.058	0.135	0.264***	0.319***	0.337**	
Religion: Islam							
Religion: Atheist	-0.47	-0.501	-0.278	-0.046	-0.343	-0.029	
Religion: Other	-0.807**	-0.392	-0.488	-0.836*	-0.176	0.09	
Settlement type: Village			•	•			
Settlement type: Small town	0.03	0.127	0.156	-0.024	0.114	0.353*	
Settlement type: Regional center	-0.053	0.156	0.222	-0.180*	-0.062	0.134	
Settlement type: Capital	-0.093	0.213	0.406*	-0.06	0.101	0.243	
n Population in settlement	-0.004	-0.082	-0.09	-0.062*	-0.119**	-0.168**	
Cut-off 1	-1.314*	-2.255**	-2.586**	5.165***	5.258***	4.716**	
Cut-off 2	-0.266	-1.165	-1.442	6.248***	6.342***	5.852***	
Cut-off 3	0.835	-0.081	-0.316	7.293***	7.389***	6.909***	
Cut-off 4	2.290***	1.352	1.017	8.706***	8.776***	8.179***	
N	2026	882	704	2184	842	672	

Table 42. Relative social exclusion and well-being in Serbia

Dependent Variable: Self-reported well-being	(1)	(2)	(3)	(4)	(5)	(6)	
self reperted well selling	-	Baseline	:	IV for Household Consumption			
In Household consumption	0.381***	0.328***	0.371***	0.792***	0.846**	0.771*	
n Mean HHC in locality ¹	-0.25	-0.175	-0.274	-0.027	-0.061	-0.144	
Socially Excluded		-0.691***	-0.637***		-0.814***	-0.745***	
Relative Social Exclusion ²			-0.009			-0.029***	
House Owner	0.349***	0.264**	0.271**	0.341***	0.227**	0.239**	
Land Owner	0.243***	0.383***	0.411***	0.173***	0.344***	0.364***	
Unemployed	-0.546***	-0.465***	-0.450***	-0.480***	-0.336**	-0.341**	
Not in the Lobar Force	-0.016	0.006	0.015	0.049	0.102	0.106	
Female	0.024	0.063	0.056	0.029	0.085	0.074	
4ge	-0.060***	-0.066***	-0.064***	-0.061***	-0.068***	-0.062***	
Age Squared	0.053***	0.059***	0.056***	0.056***	0.063***	0.056***	
Ethnicity in Settlement (<10%)							
Ethnicity in Settlement (10-20%)	0.038	0.286	0.378	0.182	0.39	0.5	
Ethnicity in Settlement (20-40%)	0.131	0.375*	0.377	0.267*	0.486**	0.603*	
Ethnicity in Settlement (40-60%)	0.012	0.116	0.118	0.186	0.174	0.109	
Ethnicity in Settlement (60-80%)	-0.09	-0.215	-0.127	0.08	-0.202	-0.132	
Ethnicity in Settlement (>80%)	0.038	-0.016	0.043	0.036	-0.006	-0.014	
Marital Status	0.364***	0.427***	0.421***	0.287***	0.327***	0.304***	
Education	0.061***	0.039***	0.036**	0.036***	0.008	0.011	
n Household size	-0.305***	-0.422***	-0.417***	-0.416***	-0.633***	-0.575***	
Religion: Orthodox (Omitted)							
Religion: Catholic	0.138	0.17	0.197	0.373***	0.362**	0.362*	
Religion: Islam	-0.148	-0.023	-0.046	-0.410***	0.059	0.01	
Religion: Atheist	-0.592*	-0.522	0.025	-0.577***	-0.43	-0.064	
Religion: Other	-0.537***	-0.294	-0.417	-0.521***	-0.308	-0.406	
Settlement type: Village		•					
Settlement type: Small town	0.078	0.212*	0.235*	0.013	0.133	0.178	
Settlement type: Regional center	0.134	0.298*	0.376*	-0.062	0.097	0.204	
Settlement type: Capital	0.108	0.189	0.289	-0.248	0.041	0.215	
n Population in settlement	-0.01	-0.044	-0.063	0.021	-0.028	-0.049	
Cut-off 1	-1.058	-2.022	-2.555	3.186**	2.03	0.871	
Cut-off 2	0.051	-0.861	-1.408	4.240***	3.146	1.969	
Cut-off 3	1.007	0.195	-0.346	5.149***	4.166**	2.994	
Cut-off 4	2.274*	1.557	0.971	6.388***	5.496***	4.276**	
N	1967	992	916	2173	941	868	

Table 43. Relative social exclusion and well-being in Tajikistan

Dependent Variable: Self-reported well-being	(1)	(2)	(3)	(4)	(5)	(6)	
zeg reperieu wen eenig		Baseline		IV for Household Consumption			
In Household consumption	0.137***	0.127**	0.132**	0.350**	-0.417	-0.447	
n Mean HHC in locality ¹	-0.165***	-0.220**	-0.286***	-0.148***	-0.122	-0.176*	
Socially Excluded		-0.459***	-0.394***	•	-0.464***	-0.408***	
Relative Social Exclusion ²			-0.010**			-0.008*	
House Owner	0.287***	0.274*	0.262	0.229**	0.287*	0.274*	
Land Owner	-0.035	0.011	-0.015	0.006	0.016	-0.01	
Unemployed	0.096	0.265**	0.281**	0.157*	0.122	0.13	
Not in the Lobar Force	0.08	0.228**	0.238***	0.116**	0.131	0.134	
Female	-0.007	-0.057	-0.053	0	-0.049	-0.046	
4ge	-0.021**	-0.024	-0.024	-0.027***	-0.024	-0.024	
Age Squared	0.025**	0.036**	0.035**	0.033***	0.036**	0.035**	
Ethnicity in Settlement (<10%)							
Ethnicity in Settlement (10-20%)	0.148	-0.101	-0.117	0.101	-0.189	-0.21	
Ethnicity in Settlement (20-40%)	0.176	-0.327	-0.386*	0.141	-0.317	-0.368*	
Ethnicity in Settlement (40-60%)	0.033	0.328**	0.291*	0.016	0.275*	0.231	
Ethnicity in Settlement (60-80%)	0.136	0.036	0.018	0.088	-0.042	-0.064	
Ethnicity in Settlement (>80%)	-0.031	0.025	0.034	-0.097	-0.004	0	
Aarital Status	0.09	0.034	0.031	0.115*	0.101	0.097	
Education	0.053***	0.045***	0.044**	0.039***	0.061***	0.060***	
n Household size	0.086	0.14	0.173*	-0.03	0.330**	0.369**	
Religion: Orthodox (Omitted)			•	•			
Religion: Catholic	-0.745***	0	0	-0.782***	0	0	
Religion: Islam	0.340*	0.289	0.318	0.364**	0.226	0.253	
Religion: Atheist	-0.566	-0.507	-0.489	-0.828**	-0.506	-0.485	
Religion: Other	0.126	1.025***	1.104***	0.109	0.882**	0.939***	
Settlement type: Village			•	•			
Settlement type: Small town	0.007	0.137	0.139	0.02	0.099	0.093	
Settlement type: Regional center	-0.165	-0.121	-0.198	-0.187	-0.081	-0.16	
Settlement type: Capital	0.213	0.781	0.692	-0.463***	-0.538*	-0.583**	
n Population in settlement	0.084***	0.046	0.033	0.085***	0.082**	0.076**	
Cut-off 1	0.325	0	-0.762	0.569	-3.121**	-3.866**	
Cut-off 2	1.182	0.83	0.064	1.395*	-2.306	-3.054*	
Cut-off 3	2.091**	1.733	0.969	2.323***	-1.419	-2.167	
Cut-off 4	3.558***	3.293***	2.546**	3.733***	0.111	-0.624	
N	2028	846	833	2448	837	824	

Table 44. Relative social exclusion and well-being in Ukraine

Dependent Variable: Self-reported well-being	(1)	(2)	(3)	(4)	(5)	(6)	
and the state of t		Baseline		IV for Household Consumption			
In Household consumption	0.087***	0.015	-0.021	-0.029	-0.042	0.044	
n Mean HHC in locality ¹	0.354**	0.572***	0.275	0.236**	0.519***	0.274	
Socially Excluded		-0.704***	-0.721***		-0.721***	-0.695***	
Relative Social Position ²			-0.039**			-0.036***	
House Owner	0.326***	0.247*	0.259*	0.218**	0.157	0.149	
Land Owner	0.139***	0.079	0.066	0.180***	0.092	0.067	
Unemployed	-0.434***	-0.327**	-0.359**	-0.477***	-0.357**	-0.363**	
Not in the Lobar Force	-0.131**	-0.078	-0.094	-0.112*	-0.09	-0.084	
Female	-0.076*	-0.074	-0.067	-0.092**	-0.086	-0.081	
4ge	-0.044***	-0.039***	-0.038***	-0.050***	-0.041***	-0.038***	
Age Squared	0.036***	0.035***	0.034***	0.042***	0.037***	0.034***	
Ethnicity in Settlement (<10%)							
Ethnicity in Settlement (10-20%)	-0.259	0.211	0.22	-0.244	0.107	0.124	
Ethnicity in Settlement (20-40%)	0.005	-0.188	-0.181	-0.067	-0.253	-0.225	
Ethnicity in Settlement (40-60%)	-0.133	-0.057	-0.042	-0.206	-0.186	-0.157	
Ethnicity in Settlement (60-80%)	-0.221	-0.236	-0.261	-0.209	-0.253	-0.262	
Ethnicity in Settlement (>80%)	-0.217	-0.15	-0.149	-0.148	-0.093	-0.019	
Marital Status	0.160***	0.148*	0.151*	0.162***	0.151*	0.140*	
Education	0.017**	0.014	0.014	0.022**	0.018	0.01	
n Household size	-0.118**	-0.191**	-0.209**	-0.055	-0.137	-0.18	
Religion: Orthodox (Omitted)							
Religion: Catholic		•				•	
Religion: Islam	-0.230*	-0.205	-0.225	0.066	0.037	0.003	
Religion: Atheist	-0.119*	-0.01	0.001	-0.171***	-0.059	-0.052	
Religion: Other	0.251***	0.103	0.116	0.267***	0.143	0.126	
Settlement type: Village		•				•	
Settlement type: Small town	0.067	-0.126	-0.125	0.038	-0.132	-0.122	
Settlement type: Regional center	0.274**	-0.083	-0.098	0.298**	-0.023	0.026	
Settlement type: Capital	-0.111	-0.708**	-0.760***	0.197	-0.27	-0.36	
n Population in settlement	-0.035	-0.014	-0.024	-0.033	-0.025	-0.045	
Cut-off 1	0.424	1.152	-1.38	-1.011	0.634	-0.958	
Cut-off 2	1.579	2.425*	-0.105	0.115	1.878	0.291	
Cut-off 3	2.387**	3.268**	0.727	0.913	2.700**	1.103	
Cut-off 4	3.754***	4.670***	2.177	2.271***	4.057***	2.512*	
N	2423	1180	1158	2605	1177	1155	