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**HEALTH, MONEY AND WELLBEING**

**Subjective Responses to Post-Soviet Transformation**

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*Wellbeing: The state of being happy, healthy or prosperous.*

*Welfare: The state of doing well, especially in respect to good fortune, happiness, wellbeing or prosperity.*

Webster's New Collegiate Dictionary (1963: 1012)

The subjective approach to the study of wellbeing can be justified both theoretically and empirically. The English word 'wellbeing' is derived from Old English and Old High German words for will, which can be defined as 'desire or wish' (Webster's, 1963: 1021). The example offered--'call it what you will'--is particularly apt here, since both ordinary people and social scientists may define subjective circumstances in a variety of ways.

In theory, welfare economics can avoid the problem of defining what constitutes welfare to individuals, or define the term so broadly as to include anything that satisfies human wants. But a definition so broad that it fails to distinguish between a desire to hit the jackpot in a Las Vegas casino and a non-monetized benefit such as backpacking in the Rocky Mountains risks being, as Ian Little noted (1963: 81f), 'an uninterrupted stream of logical deductions which are not about anything at all'.

Methodologically, at least five different types of indicators of wellbeing and the influences on wellbeing can be available for empirical analysis. There are the "hard" indicators, impersonal attributes of individuals capable of reliable verification, such as income and health. But the validity of many so-called objective measures can be contested, especially outside mature market economies. Hence, there is a case for turning to subjective measures, assessments that individuals make of their own circumstances, such as happiness or life satisfaction. A third type of indicator is relational, as in social capital studies of networks involving the position of one individual vis a vis others. Fourthly, individual-level statistics can be aggregated to the national level to produce such measures as life expectancy. Finally, context variables characterize structural conditions that may affect individual wellbeing, for example, the extent to which a political regime is repressive or the environment is

high or low in pollution.

In every society the distribution of health, money and happiness is a variable. A multiplicity of social science theories offer testable hypotheses about influences on wellbeing. If wellbeing is defined as happiness, then health can influence happiness, but if wellbeing is defined as health then the reverse may be true. In any event, other influences can also be involved making causal arrows more complex for each indicator. For example, good health can be hypothesized to cause happiness or happiness can be hypothesized to make people healthier and material living standards may cause both good health and happiness. The complexity of these relationships raises the prospect that these hypotheses are tautological, because health, happiness and prosperity are simply different labels of the same underlying intellectual concept.

The first object of this paper is to review what happens when measures of wellbeing are applied in societies in transformation; empirical data comes from representative surveys in eight successor countries of the Soviet Union. The second object is to set out five empirically testable hypotheses, namely: material conditions, health, human capital, social capital and context influence wellbeing. The third object is to test hypotheses with self-reported happiness as the dependent variable. Given the inter-relationship between health and happiness at both the conceptual and empirical level, the fourth section uses two-stage OLS regression analysis to assess empirically the extent to which health and happiness are independent or simply alternative indicators of the same underlying concept of wellbeing. The concluding discussion of policy implications uses empirical findings to distinguish between significant influences that are and are not readily amenable to direct influence by government actions.

## **I MEASURES OF WELLBEING**

The post-Soviet context. The greater the difference in context, the better the challenge to the robustness and universality of research assumptions based on research within established market economies and stable democracies. Since 1991 the context of the peoples of the Soviet Union has undergone a treble

transformation: the boundaries of the state and nature of the regime have collapsed and new boundaries and institutions have been introduced; the non-market command economy has collapsed and been replaced with elements of a market economy such as market prices and employment insecurity; and a social structure based on prestige defined by the *nomenklatura* system and Communist doctrines has also collapsed.

The treble transformation of the institutions of the Soviet Union has been an extraordinary textbook example of something far worse than individual unhappiness, which can be temporary and is not collective. It fits Emile Durkheim's concept of *anomie*, (1952: 252), a social condition in which the shock of rapid change in the social order deprives individuals of the norms that guide how they are expected to act. Durkheim concluded that the strains of having to 'learn greater self-control' because of the breakdown in established social norms creates 'intolerable suffering' (1952 translation: 252) up to and including suicide. Consistent with Durkheim's hypothesis, aggregate mortality statistics for the Russian Federation have shown an unusual fall in life expectancy and a rise in deaths in age-specific groups due to avoidable causes, such as drunkenness and industrial accidents and murder (cf. Meslé et al., 1992; Cockerham, 1999). Often, such data is interpreted as evidence of pervasive unhappiness, or worse, in CIS societies. Yet collective theories based on aggregate evidence cannot explain the simple fact that half the post-Soviet population lives longer than the median while half does not. It thus encourages inferences based on the ecological fallacy and, equally important, fails to consider under what circumstances and to what extent people who have been the objects of the shocks of treble transformation have been able to maintain social health and happiness (see Rose, 2003).

Surveys of individuals in eight CIS countries. The data analyzed here comes from an eight-nation 2001 survey of Living Conditions, Lifestyle (LLH) and Health in the Commonwealth of Independent States (CIS), covering the Russian Federation, Armenia, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova and Ukraine<sup>1</sup>. In each

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<sup>1</sup>. Since the eight states are a majority of the republics and a big majority of the population of the former USSR, they are subsequently referred to as post-Soviet states. Of the remainder three--Estonia, Latvia and Lithuania--were territories

country a minimum of 2,000 respondents was interviewed face-to-face by national research institutes. The project was financed by the FSP5 horizontal programme, "Confirming the International Role of Community Research", INCO2-Copernicus, of the European Commission. The study has been co-ordinated by Dr. Christian Haerpfer of the Institute for Hohere Studien in Vienna, and the author of the paper was one of a multi-national team of participants along with medical and social science researchers from Austria and the United Kingdom.

As the project's title makes clear, the survey questionnaire focused explicitly on individual-level conditions relevant to the theme of the ESF conference, both those conventionally described as subjective and those impersonal attributes of individuals such as education, conventionally described as objective (for details of the project, see [www.llh.at](http://www.llh.at)). Moreover, for each conceptual topic multiple indicators were normally collected. The indicators discussed below have been selected on grounds of theoretical relevance and appropriate statistical grounds.

Although individuals were interviewed in what are today eight independent states, nearly every respondent has lived most of his or her life in the Soviet Union. Biomedical studies of health, the neo-classical economic paradigm and happiness studies all offer hypotheses regarding the consequences for happiness of differences between individuals according to age, income, education and so forth, all of which are independent of context and the boundaries of states. Ironically, Marxist doctrine and the structure of institutions of the Soviet Union also assume homogeneous influences on individuals from the Barents Sea to the Black Sea, the Caspian and the deserts of Central Asia. Moreover, surveys have documented that differences of state boundaries or ethnic differences within states are largely offset by positive attitudes toward inter-group and inter-state relations and considerable similarities in responses of different groups (see e.g. VCIOM, 1997; Rose, 2001). Thus, rather than treating the 18,387 survey respondents as if they had led their lives independent of each other in separate universes, we follow the assumption of

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annexed by the Soviet Union as a consequence of the Second World War and they are entering the European Union rather than remaining in the Commonwealth of Independent States (CIS).

generic theories and pool data for all respondents into a single file. In order to include a meaningful analysis of contextual differences, each national survey is weighted equally. We present results from the pooled data set in the tables and graphics that follow.

The LLH measure of happiness asks individuals to make an overall evaluation of how they see their situation today (Figure 1). The replies show that, notwithstanding the collective shocks of transformation, more than two-thirds feel happy. The median respondent describes their condition as fairly happy, and the proportion who say they are very happy outnumbers those who describe themselves as very unhappy by a margin of well over two to one. Moreover, in all eight successor states a majority of people say they are happy.<sup>2</sup>

(Figure 1 about here)

An alternative set of indicators of subjective wellbeing comes from a battery of questions about life satisfaction (Table 1). In addition to a generalized question about life satisfaction overall, the LLH survey asked about satisfaction in domains as different as air pollution and income. When making assessments of different domains of life, people discriminate greatly: the highest degree of satisfaction, 82 percent, refers to satisfaction with climate, and other environmental measures also show high levels of satisfaction. The lowest level of satisfaction, 20 percent, is with personal income and next lowest is household finance. The median domain--public transport--satisfies 60 percent of respondents.

(Table 1 about here)

When asked to say whether or not they are satisfied with their life overall, CIS citizens divide into two almost equal groups: 45 percent show a degree of satisfaction and 52 percent express a degree of dissatisfaction, with more people being very dissatisfied than very satisfied. This places overall life satisfaction ninth in

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<sup>2</sup>. The national totals are: Armenia 67 percent; Belarus 60 percent; Georgia 63 percent; Kazakhstan 71 percent; Kyrgyzstan 81 percent; Moldova 51 percent; Russia 65 percent; and Ukraine 53 percent.

a list of domains rather than at or near the median (public transport, 60 percent). In other words, it is inappropriate, at least in the eight countries examined here, to generalize specific satisfactions from general life satisfaction, or vice versa. Factor analysis confirms the existence of three separate dimensions of life satisfaction (Table 2). The first, and most important (eigen value 3.92; variance explained, 28.0%) loads highly on household finance (0.86); personal income (.84) and life overall (.76). The second (variance explained 15.4%; eigen value 2.16) loads high on three environmental measures: air purity, water quality and climate. The third factor (variance explained, 8.6%; eigen value 1.20) concerns conditions at work and education. The structure of satisfactions is consistent with Marxist ideas of subjective wellbeing as the "superstructure", and material circumstances as the determinants. The point is re-enforced by two of the three indicators in the third factor--satisfaction with work and with conditions of employment--cross-loading heavily with the first factor.

(Table 2 about here)

As would be expected, there is a substantial and statistically significant tau-beta correlation between the happiness indicator and overall life satisfaction (0.32). However, the relationship is far from complete (Table 3). Together, four in seven fit the ideal-type extremes of being happy and satisfied (37 percent) or unhappy and dissatisfied (19 percent). Contrariwise, three in ten are found in the completely "off diagonal" boxes, being happy yet dissatisfied with life overall (25 percent) and or unhappy yet satisfied with life (5 percent). In other words, for every two persons who may see happiness and life satisfaction as two aspects of the same thing, one does not.

(Table 3 about here)

An additional caution about treating happiness and life satisfaction as interchangeable, at least in the context of post-Soviet societies, is that when happiness is added to a factor analysis of the 13 different domains of life satisfaction, it is not strongly associated with any dimension of life satisfaction. Whereas overall life satisfaction is strongly linked with financial and income satisfaction, loading at 0.76, the loading for happiness is only 0.47. Moreover, the inclusion of happiness does not alter the overall three-dimensional structure of areas of life satisfaction.

Conceptual distinctions between happiness and life satisfaction are readily available. For example, satisfaction can be regarded as the result of goal attainment, whereas happiness can be found in striving toward a goal. For example, a medical student can be happy studying whilst far from the goal of being a practising and prosperous doctor or a married couple can be happy whilst remaining dissatisfied as long as their children have not yet settled down. A partial correlation between happiness and life satisfaction would therefore only be found among those who had achieved their goal as well as being happy whilst seeking to attain it. For the statistical analysis in this paper, the controlling consideration is the fact that the object is to test a multiplicity of influences on subjective wellbeing, including measures of economic conditions. In order to avoid biasing the results *ab initio* in favour of a materialist outcome, happiness is employed as the dependent variable.

## **II ALTERNATIVE HYPOTHESES ABOUT SUBJECTIVE WELLBEING**

Just as there are multiple measures of wellbeing, so too there are multiple theories seeking to explain wellbeing. Comparative analyses using aggregate indicators may explain cross-national variations in wellbeing with contextual variables; employment studies may use income, employment status or related variables to explain happiness; and health studies may explain happiness in terms of health or vice versa.

Given the pervasiveness with which societies have been transformed by the collapse of the Soviet Union, the study of mass response to transformation requires special care in collecting appropriate indicators from multiple domains of life, since it cannot be assumed that findings about people in a stable Western society necessarily fit radically different circumstances. The approach to innovative measures pioneered in the New Russia Barometer since 1992 (see [www.cspp.strath.ac.uk](http://www.cspp.strath.ac.uk)) has been followed in the Living Conditions, Lifestyles and Health survey of eight CIS countries. Thus, it is possible to use one data set to test a variety of competing hypotheses about determinants of wellbeing (for details of the indicators relevant to each hypothesis and their distribution, see Appendix A).

H 1. If individuals are materially better off, they are likely to be happier.

Economic transformation was a systemic shock that affected all members of a CIS society through hyper-inflation and replacing non-market with market allocation of goods. However, the impact of the shock was not felt equally within CIS societies. Statistics showing about a third or so of the population living in poverty imply that two-thirds were not. Since many economic variables are highly intercorrelated, to avoid multicollinearity four were selected for inclusion in regression analyses in this paper. When people are asked to evaluate their current economic situation, 51 percent said it was average or 'in between'; 40 percent said it was bad or very bad; and 9 percent described it as good or very good. An indicator of the impact on the household's economic conditions in the past decade found that 59 percent felt worse off; 23 percent reported no change and 18 percent reported improvement. An alternative measure of income is the possession of durable consumer goods; then three-quarters report the ownership of a television set; 24 percent report owning a car; and 25 percent owning a videocassette recorder. The figure for VCR ownership is particularly revealing, for unlike a car or television set or many other durables, VCRs only came on sale in CIS countries after economic transformation, and the cost of this consumer durable can represent several months income (Rose and Krassilnikova, 1996).

H 2. If individuals are healthier in mind and body (*mens sana in corpore sano*), they are likely to be happier.

Two questions asking an individual to make an overall evaluation of their health were asked in different parts of the questionnaire. The question used in this analysis asked about 'your health these days' on a four-point scale, with responses ranging from good to bad. After taking respondents through a series of questions about their medical history, people were also asked about satisfaction with their health on a four-point scale. The two measures have a Kendall's tau-beta correlation of 0.72, and 89% percent were consistently positive or negative in response to both questions. Particularly relevant in countries in transformation was a second question asking people whether or not they felt they could control what happened to them in life, a measure found significant in research in the United States and in other post-Soviet studies (Syme, 1989; Rose, 2003). Another question addressed self esteem by asking people whether or not they felt confidence in their ability to cope with life.

H 3. If individuals have more human capital, they are likely to be happier.

Education is a familiar human capital indicator. Age is also relevant, insofar as younger people should be better able to adapt to transformation than older people, and have a longer time horizon in which to await future benefits in return for immediate costs. Gender may be conceived as a form of human capital too, albeit its significance is problematic in the post-Soviet context (cf. Watson, 1995).

H 4. If individuals have more social capital, they are likely to be happier.

There is no standard definition of social capital: Robert Putnam (1993) has himself mixed attitudes and behaviour and James Coleman (1990) challenges this view by emphasizing that social capital is an instrumental asset for getting things done. In the Soviet and post-Soviet context (Rose, 2000), social capital can be used to subvert official rules and regulations as well as to make government work. A varied range of eight indicators are therefore employed as tests of the potential influence of social capital (see Appendix A).

H 5. If the perceived and actual context of individuals is more positive, they are likely to be happier.

Cultural theories of happiness lump a host of potential influences under a single label. With survey data a dummy variable can be created for each country, but this has the disadvantage of being mute about the reasons why such a variable should be significant. The strategy employed here is to disaggregate the notion of culture or context into multiple measures of context, in order to identify which particular contextual attribute does or does not influence individual attitudes, net of differences in social conditions. The five indicators cover inflation, freedom, town size, and perceived changes in the national economy compared to the past, and evaluation of the environment.

### **III INFLUENCES ON HAPPINESS**

A series of OLS regression analyses were undertaken to test influences on happiness. To ascertain the extent to which each hypothesis was sufficient to explain variance in individual happiness, separate regressions were initially run with a bloc of

indicators appropriate for each hypothesis. Each bloc regression identified some indicators as significant and some as insignificant or, given the massive size of the sample, as trivial in terms of Beta values, even though statistically significant. Trivial influences were dropped from the second stage that combined all influences in a single multiple regression analysis. The results of the single bloc regressions and of the combination of all variables are both reported in Table 4.

(Table 4 about here)

Multiple influences on happiness. The bloc regressions show that more than one hypothesis can explain a noteworthy proportion of variance in happiness--but not equally so. Happiness is most influenced by health (19.8 percent of the variance explained). It makes sense to speak of a sound mind in a sound body, for not only is an individual's general state of physical health important for happiness but also a person's sense of control over what happens in their lives and self confidence. Material conditions also register a substantial influence, explaining 14.1 percent of the variance in a bloc regression. The most important material influences are subjective satisfaction with the current household economic situation and objective material living standards, as indicated by a household's number of consumer goods. While the bloc regression for social capital registers a slightly better fit for happiness than does human capital, both are of secondary importance, explaining about half the variance that health can explain, and also less than material conditions.

The need for a multi-variate explanation of happiness is confirmed by combining the independent variables from the five bloc regressions into a single analysis (Table 4). When this is done, the total variance explained rises to 28.8 percent. Net of the impact of material conditions, all three health indicators remain substantially important, and three of the four indicators of material conditions do so too. The relative importance of social capital is shown by five social capital influences remaining significant as against only one human capital influence. Taking individual-level variables into account further reduces the influence of context. It is particularly striking here that inflation, which is a pervasive influence affecting everyone in a money economy, fails to register any statistical significance as an influence on happiness in post-Soviet societies. In other words, how an individual responds to transformation is far more important for happiness (and much else) than

the objective nature of a contextual stimulus.

Impact on happiness. The impact on happiness of each hypothesized bloc is reflected in the b values for the combined regression in Table 4. It simulates the effect of a change in each statistically significant independent variable from its lowest to its highest value, as reported in Appendix Table A. Thus, if a person moved three steps upwards from the worst to the best self-assessed health, then the impact on their happiness, net of all other influences, would be an increase of 0.72 on the four-point happiness scale, bringing the average person towards the prospect of being very happy rather than fairly happy.

(Figure 2 about here)

Altogether, the impact of both health and material conditions is large--and independent of each other (Figure 2). Being at the highest rather than the lowest level on all three health indicators boosts happiness by almost one full point, and the same is true for the four indicators of material circumstances. Although none of the social capital indicators shows as strong an influence on happiness as the most important material and health measures, net of all other influences, they collectively are capable of raising a person by almost seven-tenths of a point on the happiness scale. By contrast, age, education and gender have little impact and the same is true of context.

#### **IV INFLUENCES ON WELLBEING**

Since self-assessed health has the biggest statistical influence and impact on happiness, this re-opens the question: What is the relationship between the multiplicity of indicators that may be used to assess wellbeing? Since wellbeing is not a tightly defined word or concept, it can be argued that health, happiness and overall life satisfaction are simply three facets of the same construct. If this is the case, we would expect that adding health to the factor analysis of satisfaction indicators and happiness reported in Table 3 would produce a single factor in which all three indicators loaded together. Such a result would suggest that the influence of health on happiness shown in Table 4 is largely spurious.

(Table 5 about here)

Health and happiness do load strongly together on the same factor (0.79 and 0.75), but these two components of wellbeing are independent of overall life satisfaction (Table 5). Life satisfaction continues to load strongly with indicators of material conditions (cf. Tables 5 and 3). In other words, health and happiness are not just an alternative form of material satisfaction. Since the happiness/health factor has only a minimally acceptable eigen value (1.1), the factor analysis in Table 5 leaves open the possibility that the relationship between happiness and health could be that of cause and effect rather than being two parts of the same underlying construct.

There is also the possibility that health is caused by material conditions. This assumption can be tested by running a regression in which health is the dependent variable (Table 6). The evidence rejects this assumption. Age is by far the strongest influence on health. As people grow older their health deteriorates.<sup>3</sup> Education and gender are also important influences. The poor health of women in the sample is due to the fact that women are grossly over-represented among the older population, because of high rates of early mortality among men. The bloc R2 for the three health indicators is 21.6 percent. Although material conditions are influential too, the bloc R2 is barely half that of health. The influence of social capital and of context is minor. (Table 6 about here)

When all influences on health are combined in a multiple regression, the total amount of variance explained rises to 28.7 percent, but this increase is only seven percentage points more than the variance explained by the bloc regression for human capital<sup>4</sup> The collective impact of human capital cannot be assessed, since education improves health substantially, while age reduces healthiness. Material conditions, particularly a person's current household economic situation, also has a

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<sup>3</sup>. Moreover, Russians feel older at a younger age than do peoples in Central and Western Europe. New Russia Barometer surveys find that CIS citizens tend to say they are too old to learn new skills below the age of 40 rather than a decade later, as tends to be the case in Central and Eastern Europe.

<sup>4</sup>. If happiness is included as an independent variable, the total variance explained rises to 33.7 percent, and the Beta for happiness is .26, second in importance to age, which remains the largest Beta, .30.

substantial positive impact on health. Social capital is much less important for health (collective impact, 0.34) than for happiness (impact, 0.69).

To determine the extent to which happiness and health influence each other a two-stage Least Squares Regression was run (Table 7).<sup>5</sup> It confirms that there is an exchange of influence. Health has a Beta of .17, the largest of any significant influence on happiness. Likewise, happiness has the most influence on health (Beta: .21). The variance explained in each two-stage regression shows that there is a good fit, 28.7 percent for health and 23.4 percent for happiness.

(Table 7 about here)

Notwithstanding reciprocal influence, the causal model of health is substantially different from that for happiness. For health, age is the most important influence, whereas it fails to achieve significance for happiness (table 4). Moreover, the two other human capital indicators, gender and education, are also much more influential for health than for happiness. Material wellbeing is of slight importance for health by comparison with age; and both social capital and context are insignificant influences.

By contrast, the major influences on happiness are health and material wellbeing, and the Beta for current economic satisfaction is almost as large as that for health (0.15 and 0.17 respectively). In addition, social capital registers five significant influences and context has some influence too. Since the two-stage regression reduces to insignificance the influence of control of one's life and self-confidence on happiness, happiness may be a generic tag for social psychological and psychological influences on physical health. That these psychological indicators can influence happiness but age does not shows that while older people may find that their physical health is deteriorating, their psychological state may be holding steady or even improving as, with experience, they become more confident of themselves and of their ability to control their lives or, in post-Communist countries, to respond successfully to the shocks of transformation).

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<sup>5</sup>. To meet the requirements of omitting variables, for the happiness regression age is excluded as it was not a significant influence on happiness earlier. For the health regression, three minor social capital variables are omitted.

Differences in the causes of two major desiderata of human life show that health and happiness are not interchangeable indicators of wellbeing and welfare but rather each is distinctive, albeit overlapping, in importance to individuals.

## V PUBLIC POLICY IMPLICATIONS

Policymakers are ready to proclaim that the object of government is the promotion of welfare. The preamble of the American Constitution explicitly states that government was 'to promote the general welfare'.<sup>6</sup> The founding fathers of the social sciences have also viewed welfare as of central importance. Two centuries ago the great utilitarian, Jeremy Bentham, declared 'the greatest happiness of the greatest number is the foundation of morals and legislation'. The term 'welfare state' is a reductionist misnomer, because it implies that welfare is solely produced by the state. This is not the case: the total sum of welfare of an individual is the product of three sources: the household, the market and the state (see Rose, 1986).

The identification of welfare as an object of government begs the question: what do we mean by welfare or wellbeing? To assume that there exists or ought to exist a political consensus about what constitutes welfare is to take the politics out of government. The definition of welfare is a political act. This is obviously the case when income equality is made the standard for welfare rather than every citizen having an income above the poverty line. Disputes about the meaning of welfare are often avoided by focusing on a narrower and more readily agreed priority: the reduction of illfare or objective illbeing.

The concept of "happiness" or "subjective wellbeing" goes far beyond a definition of welfare that is confined to the measuring rod of money, for example, including such needs as self-identity and affection (cf. Maslow, 1943 and his followers). When the political system or economy creates widespread dissatisfaction, the disjunction

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<sup>6</sup>. It is often overlooked that the general welfare clause of the preamble Constitution followed after other priorities, including securing liberty, maintaining domestic order, administering justice, providing for common defense and promoting union as against fragmentation of the states signing the federal compact.

between attitudes toward the polity and economy and overall life satisfaction is positive for an individual's overall mental health. Thus, the economic upheavals of the 1970s, involving economic stagnation, inflation and rising unemployment, had surprisingly little influence on individual life satisfaction (Rose, 1980: 154).

Practical policymakers are looking for more than consensus on definitions; they are also looking for aspects of wellbeing or of illfare that can be stated in terms capable of being incorporated in public laws and administered by bureaucrats whose function is to deliver entitlements impartially, applying laws and rules in the same way to everyone. Happiness is an extreme example of a state of mind that cannot be reduced to statutory terms, quite apart from the fact that to offer benefits to people deemed unhappy would create the moral hazard of people shedding crocodile tears in order to claim such benefits.

According to the above evidence, there are some policy handles that government can use to have a degree of direct or indirect influence on the probability of individuals being fairly or very happy (cf. Table 4 and Figure 2). It can do this directly by promoting better material living conditions, a particular concern of post-Soviet citizens and a priority of governors in Western market economies as well as in economies in transformation. Government can also influence the context in which individuals evaluate their wellbeing, albeit this set of influences has a very limited impact. Whilst the budget of every government shows a great deal of money spent on health, much of this goes to alleviate the consequences of ill health. Public expenditure cannot make an individual 20 or 30 years younger, nor can the actions of government give individuals the self-confidence and sense of control necessary to develop a healthy mind in the face of adversities that are themselves the consequences of government failures.

While public policies can have some impact on the influences that make people happier, there are limits to the extent to which public policy can produce individual happiness. The foregoing demonstrates that while it is possible to improve our understanding of the causes of wellbeing, it does not follow that such knowledge will identify processes amenable to positive policy intervention by the state. Moreover, the history of the Soviet Union is a reminder of what the costs in human life are when

a regime accepts no limits in its attempt to mould its population into its ideal of a "happy" new Soviet man (Clark and Wildavsky, 1990; Shlapentokh, 2001).

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Table 1. SATISFACTION BY DOMAIN OF CIS LIFE

	Satisfied			Some- what	Dissatisfied	
	Total	Very	Some- what		Very	Don't know
Climate	(82)	39	43	12	5	1
Electricity supply	(74)	37	37	15	11	0
Housing	(71)	34	37	19	10	0
Water quality	(67)	32	35	18	14	1
Air purity	(67)	32	35	20	12	1
Education level	(65)	31	34	19	9	7
Public transport	(60)	27	33	19	15	6
Security, locally	(56)	23	33	27	13	4
Work/studies	(50)	21	29	20	14	16
<b>Life as a whole</b>	<b>(45)</b>	<b>12</b>	<b>33</b>	<b>29</b>	<b>23</b>	<b>3</b>
Conditions of work	(42)	15	27	24	16	18
Household finances	(22)	5	17	33	43	2
Personal income	(20)	6	14	33	44	3

Source: As in Figure 1.

Table 2. HAPPINESS AND DOMAIN SATISFACTIONS: A FACTOR ANALYSIS

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	Factor 1	Factor 2	Factor 3
% Variance explained:	28.0	15.4	8.6
Eigen values:	3.92	2.16	1.20
Household finances	.86	.08	.05
Personal income	.84	.06	.10
Life as a whole	.76	.04	.21
Happiness with life as a whole	.47	.15	.06
Housing	.42	.37	.13
Air purity	.14	.81	-.08
Water quality	.10	.73	-.04
Climate	.07	.70	.11
Security, locally	.03	.58	.31
Education level	.18	-.01	.70
Work/studies	.47	-.12	.65
Conditions of work	.53	-.12	.60
Electricity supply	.03	.23	.48
Public transport	-.08	.35	.44

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Source: as in Figure 1.

Table 3. RELATION BETWEEN HAPPINESS AND LIFE SATISFACTION

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Happy, satisfied 37%	Happy, not dissatisfied 2%	Happy, dissatisfied 25%
Not happy, satisfied 3%	No opinions 1%	Not unhappy, dissatisfied 8%
Unhappy, satisfied 4%	Unhappy, not satisfied 1%	Unhappy, dissatisfied 19%

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Source: As in Figure 1.

Table 4. INFLUENCES ON HAPPINESS

	Bloc regression:		Combined:	
	b	Beta	b	Beta
	Bloc R <sup>2</sup> : 14.1%		Total R <sup>2</sup> : 28.8%	
<u>Material conditions</u>				
Current household economic situation	.25	.24	.15	.15
Has consumer goods: TV, VCR, car	.10	.12	.06	.07
Household economy compared to past	.05	.07	.03	.04
Adequacy of income	.05	.03	n.s.	n.s.
<u>Mens sana in corpore sano</u>	Bloc R <sup>2</sup> : 19.8%			
General state of health now	.34	.40	.24	.27
Control over own life	.08	.11	.04	.05
Self-confidence	.15	.08	.09	.05
<u>Human capital</u>	Bloc R <sup>2</sup> : 7.9%			
Age in years	-.009	-.18	n.s.	n.s.
Education	.10	.15	.04	.06
Female gender	-.12	-.07	n.s.	n.s.
<u>Social capital</u>	Bloc R <sup>2</sup> : 9.2%			
Number of friends outside the family	.32	.16	.17	.08
Pride in country	.13	.14	.09	.09
Has friends to discuss problems	.20	.10	.07	.03
Most people can be trusted	.06	.08	.04	.05
Trust in government	.07	.07	n.s.	n.s.
Not worried about street crime	.02	.02	.02	.02
Belongs to an organization	.05	.02	n.s.	n.s.
Nationality same as state nationality	n.s.	n.s.	n.s.	n.s.
<u>Context</u>	Bloc R <sup>2</sup> : 4.5%			
Satisfaction with environment	.20	.18	.08	.07
Current level of political freedom	-.08	-.09	n.s.	n.s.
Town size	.04	.08	.01	.02
National economy compared to past	.05	.05	-.03	-.03
Log of cumulative inflation since 1989	-.008	-.02	n.s.	n.s.

Note: all coefficients shown are significant at the .01 level.

Source: as in Figure 1.

Table 5. HEALTH, HAPPINESS AND DOMAIN SATISFACTIONS: FACTOR ANALYSIS

	F1	F2	F3	F4
% Variance explained:	26.9	14.4	8.60	7.34
Eigen values:	4.03	2.16	1.29	1.10
Personal income	.83	.11	.06	.12
Household finances	.83	.13	.02	.17
Life as a whole	.72	.06	.18	.24
Conditions of work	.61	-.09	.54	-.01
Housing	.40	.40	.13	.07
Air purity	.10	.83	-.06	.03
Water quality	.08	.76	-.03	-.01
Climate	.04	.70	.12	.05
Security, locally	-.05	.53	.37	.20
Education level	.11	-.04	.67	.07
Work/studies	.54	-.11	.59	.02
Public transport	-.19	.26	.52	.32
Electricity supply	.11	.24	.47	-.16
General state of health now	.18	.05	-.02	.79
Happiness with life as a whole	.26	.07	.08	.76

Source: as in Figure 1.

Table 6. INFLUENCES ON HEALTH

	Bloc regression:		Combined:	
	b	Beta	b	Beta
			Total R <sup>2</sup> : 28.7%	
<u>Material conditions</u>	Bloc R <sup>2</sup> : 11.7%			
Current household economic situation	.21	.18	.15	.12
Has consumer goods: TV, VCR, car	.08	.08	n.s.	n.s.
Household economy compared to past	.09	.10	.04	.05
Adequacy of income	.11	.07	n.s.	n.s.
<u>Mens sana in corpore sano</u>	Bloc R <sup>2</sup> : 3.7%			
Control over own life	.11	.13	.03	.04
Self-confidence	.27	.13	.17	.08
<u>Human capital</u>	Bloc R <sup>2</sup> : 21.6%			
Age in years	-.021	-.37	-.018	-.32
Education	.10	.13	.09	.12
Female gender	-.28	-.15	-.24	-.12
<u>Social capital</u>	Bloc R <sup>2</sup> : 4.5%			
Number of friends outside the family	.26	.11	.07	.03
Pride in country	.08	.07	.05	.05
Has friends to discuss problems	.26	.11	.05	.02
Most people can be trusted	.03	.03	.04	.04
Trust in government	.05	.04	n.s.	n.s.
Not worried about street crime	n.s.	n.s.	n.s.	n.s.
Belongs to an organization	n.s.	n.s.	-.05	-.02
Nationality same as state nationality	n.s.	n.s.	n.s.	n.s.
<u>Context</u>	Bloc R <sup>2</sup> : 3.3%			
Satisfaction with environment	.17	.13	.13	.10
Current level of political freedom	-.08	-.08	n.s.	n.s.
Town size	.02	.04	n.s.	n.s.
National economy compared to past	.06	.05	-.02	-.02
Log of cumulative inflation since 1989	-.03	-.06	n.s.	n.s.

Note: all coefficients shown are significant at the .01 level.

Source: as in Figure 1.

Table 7. HAPPINESS AND HEALTH: 2-STAGE LEAST SQUARES MODEL

	Health		Happiness	
	b	Beta	b	Beta
Total R <sup>2</sup> :	28.7%		23.4%	
<u>Mens sana in corpore sano</u>				
Happiness with life as a whole	.51	.21	n.a.	n.a.
General state of health now	n.a.	n.a.	.27	.17
Self-confidence	.10	.05	.08	.05
Control over own life	n.s.	n.s.	.04	.05
<u>Material conditions</u>				
Current household economic situation	.05	.04	.15	.15
Has consumer goods: TV, VCR, car	-.02	-.02	.06	.07
Household economy compared to past	n.s.	n.s.	.03	.04
Adequacy of income	n.s.	n.s.	n.s.	n.s.
<u>Human capital</u>				
Age in years	-.02	-.28	excluded	
Female gender	-.20	-.11	n.s.	n.s.
Education	.06	.08	.04	.06
<u>Social capital</u>				
Number of friends outside the family	excluded		.17	.08
Has friends to discuss problems	excluded		.07	.03
Most people can be trusted	excluded		.04	.05
Pride in country	n.s.	n.s.	.08	.09
Trust in government	n.s.	n.s.	n.s.	n.s.
Not worried about street crime	n.s.	n.s.	.02	.02
Belongs to an organization	n.s.	n.s.	n.s.	n.s.
Nationality same as state nationality	n.s.	n.s.	n.s.	n.s.
<u>Context</u>				
Satisfaction with environment	.07	.06	.07	.07
Town size	n.s.	n.s.	.01	.03
National economy compared to past	n.s.	n.s.	-.03	-.03
Current level of political freedom	n.s.	n.s.	n.s.	n.s.
Log of cumulative inflation since 1989	n.s.	n.s.	n.s.	n.s.

Note: coefficients shown are significant at the .01 level.

Source: as in Table A.

## Appendix: List of Variables

	Min	Max	Mean	Std. Dev.
<u>Dependent variables</u>				
Satisfaction with life as a whole	1 Very dissatisfied	4 Very satisfied	2.35	.97
Happiness with life as a whole	1 Very unhappy	4 Very happy	2.88	.87
General state of health now	1 Very good	4 Very bad	2.76	.95
<u>Material conditions</u>				
Current household economic situation	1 Very bad	5 Very good	2.60	.80
Household economy compared to past	1 Much worse	5 Much better	2.38	1.10
Adequacy of income	1 Lack food	3 Can buy durables	1.91	.61
Has consumer goods: TV, VCR, car	0 Has none	3 All three	1.20	.95
<u>Human capital</u>				
Age in years	18	78+	45	17
Education	1 Primary	5 Higher	3.57	1.20
Female gender	1 Male	2 Female	1.57	.50
<u>Mens sana in corpore sano</u>				
Control over own life	1 No control	5 Complete control	3.60	1.10
Self-confidence	0 Not sure	1 Very sure	.68	.47
<u>Social capital</u>				
Not worried about street crime	1 Very worried	4 Not at all worried	2.44	1.21
Has friends to discuss problems	0 No	1 Yes	.79	.40
Number of friends outside the family <sup>a</sup>	0 Three or less	1 Four or more	.81	.39
Most people can be trusted	1 Definitely disagree	4 Definitely agree	2.54	.99
Belongs to an organization	0 No	1 Member	.17	.38
Pride in country	1 Not at all proud	4 Very proud	3.01	.83
Trust in government <sup>b</sup>	1 No trust	4 Trust a lot	2.28	.80
Nationality same as state nationality	0 No	1 Yes	.76	.43
<u>Context</u>				
Satisfaction with environment <sup>c</sup>	1 Very dissatisfied	4 Very satisfied	2.09	.74
National economy compared to past	1 Worse++	4 Better	1.84	.79
Town size	1 <5000	5 >500,000	2.67	1.53
Log of cumulative inflation since 1989 <sup>d</sup>	12.38	19.77	15.87	2.27
Current level of political freedom <sup>e</sup>	2	5	3.35	.91

## Notes:

<sup>a</sup> Respondent was asked whether they had friends outside the family to meet five needs: having someone to talk to, help in times of trouble, feeling able to be yourself, feeling valued as a person, consolation when one is upset. Those with friends to meet three needs or less were classified as having three friends or less and those with friends to meet four needs or more were classified as having four or more friends.

<sup>b</sup> Additive scale: trust in national government, president, parliament, and the regional governor.

<sup>c</sup> Additive scale: satisfaction with housing, plus air and water quality.

<sup>d</sup> Natural log of cumulative inflation measured in percent.

<sup>e</sup> Freedom House score in 2001, recoded so that seven stands for most freedom and one for least.

