

**WELL-BEING AND INEQUALITY
IN TRANSITION.
THE CASE OF HUNGARY**

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ABSTRACT

The thesis provides a systematic analysis of social inequalities in Hungary during economic transition, using nationally representative samples from 1992 and 1998. Beyond the traditional economic measure of income inequality it uses a range of measures, including 'objective well-being' (such as employment status, housing quality, social relations) and 'subjective well-being' (such as individuals' self-reported satisfaction).

The analysis shows that the highly educated are well-being rich, since they have higher incomes, higher chances of labour market participation, and they are more contented. The Romany ethnic group are well-being poor, with particularly low levels of labour market participation, which cannot be explained entirely by their educational disadvantage. However, in general a 'patchwork inequality' prevails. Inhabitants of the capital prosper better and fewer experience social isolation, but they tend to be more dissatisfied with their neighbourhood. Age plays a varying, but at times major, role. Other things being equal, age has an inverted U-shaped pattern for income and for labour market participation, indicating the relative advantage of middle-aged groups. In contrast, for life satisfaction age has a pronounced U-shaped pattern.

The determinants of happiness are largely unaffected even by a major societal landslide. For example unemployment or disability pensioner status is a major source of unhappiness, even after controlling for income, both in 1992 and 1998. Religiosity, measured as church-going, is a positive and stable correlate of happiness. One exception is the self-employed, who may be called major winners of the transition process, as indicated by their growing life satisfaction.

The empirical results show that *objective well-being does matter over and above income*, in the sense that its specific measures contribute significantly and consistently to life satisfaction ('experienced utility'). This suggests that a *minimum level of 'well-being'* or that of 'functionings' is not just normatively good, as suggested by Sen's capabilities theory, but *also desired by people*.

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THEORETICAL AND EMPIRICAL FOUNDATIONS

The primary goal of the thesis is to investigate one of the main social dimensions of economic transition in Hungary, namely how well-being of various social groups has changed. The ultimate justification of such a transition process (if we disregard historical 'inevitability' as the exclusive reasoning), can only be improvement in the lives of people. Two questions arise, however: improvement for whom, and when. The latter issue is widely discussed in the literature of transition, identifying a 'valley of tears' followed by prosperity (e.g. Przeworski 1991). Most of the countries of Central-Europe have already managed to restructure their polity, the legal foundations of their economies, and stabilise their new economic systems. Transition seems to be over. Why does well-being during transition matter then? One reason is that current and future prosperity of the people greatly depends on the distributional processes during that period. The other is that better understanding of social changes would contribute to our knowledge of the patterns of social stratification. Our focus is the distribution of well-being among various social groups, thus legal or macro-economic issues, however important they may be, are considered indirectly, only through their effects.

The thesis will investigate two dimensions of social inequalities during transition: objective well-being and subjective well-being. It will aim to describe and analyse how specific social groups have gained or lost during the process, using a set of indicators. Objective well-being will incorporate income, housing quality, employment status and social relations. Subjective measures will include specific and general indicators, such as individuals' satisfaction with various aspects of their lives, including their incomes, housing conditions and family relations, and their satisfaction with their lives as a whole. This will enable us to get a rather complete picture of social inequalities, and also, to assess the relative merits of these analytical approaches.

Empirical research inevitably involves value judgements of some sort, even if this is concealed or not made explicit. These judgements, if hidden, may limit the interpretation of the implications of such results. Therefore I intend to establish the theoretical background of my research first of all, discussing the role of value judgements in philosophies of distributive justice, followed by a brief account of value choices in the empirical literature. Finally I will outline the starting position of my research, the operationalisation of a theoretical concept.

1.1 VALUE JUDGEMENTS AND THEORIES OF JUSTICE

The theoretical basis of the thesis is Amartya Sen's capabilities approach, which is regarded to be a distinctive contribution to normative economics by many. The reason for this choice, however, is not primarily this, but the normative and deeply humanistic nature of Sen's work. For Sen, the foundations of a consistent theory of the social good lie in a conception of what makes a good life for a human being (Sugden 1993). Starting from an extended critique of the orthodox position in economics, which may be called 'revealed preference welfarism' he offers an alternative theory of the social good. This approach also seems to provide a major theoretical solution for the problem of interpersonal comparisons of well-being. Sen's theory has strong conceptual connections with Aristotle's view of the human good (Nussbaum 1993; Sen 1993). Both of these theories are based on a single objective account of the human good, or in ethical terminology, human flourishing¹. This account is

'objective in the sense that it is justifiable by preference to reasons that do not derive merely from local traditions and practices, but rather from feature of humanness that lie beneath all local traditions and are there to be seen whether or not they are in fact recognised in the local traditions' (Nussbaum 1993, p. 243).

Capabilities and human flourishing

The objective roots of Sen's theory seem to be strongly associated with neo-Aristotelian accounts of human flourishing. Both capabilities and human flourishing are objective, because they identify objects of desire and choice (capabilities and human flourishing, respectively), which are desirable and choiceworthy, not simply because they are desired or chosen. 'It is desired because of what it *is*. Its constitution is what makes it good. Thus, a human goodness is something ontological. It is a state of being, not a mere feeling or experience.' (Rasmussen 1999, p. 3). One of Sen's major criticisms against utilitarianism lies in its disregard of personal adaptation to circumstances, for example by diminished expectations. A person with disadvantaged circumstances may not aspire to certain things,

¹ 'Human flourishing' is a relatively recent term in ethics. It seems to have developed in the last two decades because the traditional translation of the Greek term *eudaimonia* as "happiness" failed to communicate clearly that *eudaimonia* was an objective good, not merely a subjective good' (Rasmussen 1999, pp. 1-2).

may not choose them, but this should not prevent us from acknowledging these potential choices as objects of value. In his theory, Sen claims that having capabilities, which means a person's ability to achieve and choose from various states of being, is good per se.

Human flourishing and capabilities offer a view of the human good that is objective, individualised and diverse, self-directed and social. Both are individualised and diverse, because they depend on the individual and his characteristics. In the notion of human flourishing the realisation of a person's potentialities is not the same as someone else's, they are not interchangeable. Sen does not claim that equal states of capabilities cannot occur by definition. His account is individualised in the way that he acknowledges personal diversities, differing abilities in converting resources into states of being. The self-directed nature of human flourishing emphasises the role of a person's own effort, the necessity of him taking charge of his own life, beyond the mere possession and use of needed goods. Sen's theory also attaches intrinsic value to the active choice of individuals in attaining their current state of being. Choice, and the ability to choose are valuable, and the value attached to them distinguishes the capabilities framework from other theories of justice based on the possession of goods. Social interactions, 'philia' (friendship) are in the core of both accounts, our maturation or 'full life' requires a life with others.

Sen however emphasises the differences between his and the Aristotelian approach. He maintains that the capabilities approach is incomplete, and deliberately so. 'This (the Aristotelian) view of human nature (with a unique list of functionings for a good human life) may be tremendously overspecified' (Sen 1993, p. 47). He rejects urges to be more radical and specific, 'by introducing an objective normative account of human functioning and by describing a procedure of objective evaluation by which functionings can be assessed for their contribution to the good human life' (Nussbaum, quoted by Sen 1993, p. 108). Sen sees his capability approach primarily as an identification of the 'space' of value-objects, and does not intend to reach conclusions on how the valuational exercise is to be completed. Thus, Sen avoids being non-liberal (by not acknowledging that there are various possible accounts of what "good" is) or paternalistic (believing to be able to set the standard of evaluation entirely himself).

Sen's way of describing what a good life is, thus, rather indirect, through the identification of the space of value objects. His intention is to redirect our attention from resources to

'states of beings', from means to ends, from utility to functionings and capabilities. *Functionings*, 'beings and doings', and *capabilities*, a set of functionings a person can achieve, constitute this evaluative space. 'Living may be seen as consisting of a set of interrelated "functionings" ' (1992, p. 30). 'Being adequately nourished', 'avoiding premature mortality', 'taking part in the life of the community', and 'being happy' are all examples of functionings. Capabilities, in comparison, 'are notions of freedom, in the positive sense: what real opportunities you have regarding the life you may lead' (1987, p. 36). Capabilities thus come close to the notion of positive freedom. This definition of capabilities also implies that they include opportunities, which may not be valued or chosen by the person. For example, having the capability of being adequately nourished, someone can choose to fast. In this case the lack of the functioning of being fed is a result of the individual's choice, and not due to external constraints.

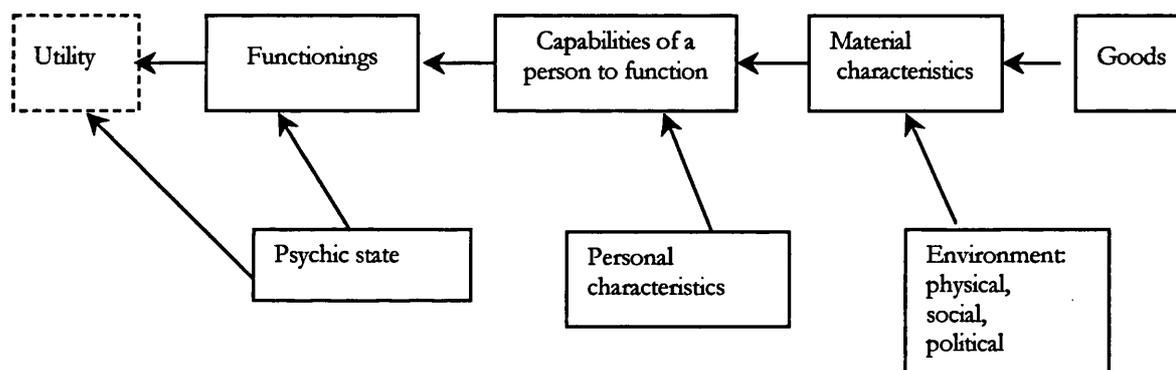
Capabilities and other objects of value

In establishing his theory, Sen draws a conceptual map, relating his position to major political philosophies. He criticises rights and entitlements, utility, resources and primary goods as bases of theories of distributive justice. Rights are inadequate, because they ignore consequences of actions (Sen 1984c), referring to especially Nozick (1974). Utility, interpreted either as an object of value in itself (referring to a certain mental state), or as a valuational device (used to evaluate other objects of value, for example goods possessed) ignores freedom and concentrates only on achievements (Sen 1992). Equality of resources, as presented by Dworkin (1981), 'overlooks the interpersonal differences in the mapping from resources to capabilities' (Sen 1984c). Primary goods, in Sen's view, lack concern for what goods do to people, thus represent only means, not ends (1982; 1984b). Sen, however, stresses how much he has been inspired by John Rawls, and identifies basic capabilities 'as natural extension of Rawls's concern with primary goods' (Sen 1982, p. 368). Sen even asserts that 'there are good reasons to think that Rawls himself – contrary to the theory is really after something like capabilities. He motivates the focus on primary goods by discussing what the primary goods enable people to do'² (1984c, p. 320).

² According to Sen the main reason for their divergence is Rawls' 'untenable assumption underpinning his framework. He asserts that the, often implicit, assumption of Rawls is that 'the same mapping of primary goods to capabilities holds for all' (Sen 1984c, p. 320). This means that Sen challenges Rawls for his disregard of interpersonal differences in converting goods into capabilities.

Sen's capabilities are equal to neither goods nor the utility enjoyed by the individual at their consumption. They stand in between, as the map portrays (Figure 1). Sen makes clear distinction between goods (e.g. rice), their material characteristics (giving calories and nutrition), the functioning of a person (living without calorie deficiency) and utility (e.g. the pleasure from consumption) (Sen 1984c). A person's well-being, the quality of living, is characterised by his functionings. The freedom to pursue well-being, the real opportunities the person has, are reflected in his set of capabilities. Capabilities are thus may be called 'well-being freedom', 'reflecting the person's freedom to lead one type of life or another' (Sen 1992, p. 40).

Figure 1.1. *Utility, functionings, capabilities and their sources*



Source: (Muellbauer 1987, p. 40)

As mentioned before, Sen emphasises the connection between capabilities and primary goods, for both provide a basis for assessment of real opportunities. Primary goods are 'things that every rational man is presumed to want.' (Rawls 1971, p. 54). Rawls makes a distinction between social primary goods and natural goods. Social primary goods are rights, liberties, and opportunities, and income and wealth. Natural goods are for example health and vigour, intelligence and imagination. Thus liberties and opportunities seem to be intrinsic part of both Sen's and Rawls' theory. Rawls explains liberty by reference to three items: 'the agents who are free, the restrictions or limitations which they are free from, and what it is that they are free to do or not to do.' (p. 177) He discusses liberty mostly in connection to constitutional and legal restrictions. Sen's focus is freedom as positive freedom, as freedom of individuals to do something. For him, the institutional and political structure of a society is relevant only in an indirect way, in its effects of promoting or inhibiting individual's capabilities.

As Sugden notes, however, Sen underestimates the difference between his theory and that of Rawls' (Sugden 1993). The fundamental difference lies in their ways of thinking about justice. While Sen aims to develop a substantive account of the good of the individual, Rawls aspires to evaluate rules, using procedural values. Rawls' justice as fairness is political, not metaphysical (Rawls 1985). It avoids 'claims to universal truth, or claims about the essential nature and identity of persons' (p. 223). It does not intend to apply any general moral conception to the structure of society. According to Rawls, the 'basic structure' of a modern democracy is realised by means of social co-operation, one unified system of social co-operation. A basis of such social unity is consensus between individuals who may well have different values and beliefs. Justice as fairness is 'supported by what we may call an "overlapping consensus", that is, by a consensus that includes all the opposing philosophical and religious doctrines likely to persist and to gain adherents in a more or less just constitutional democratic society.' (pp. 225-226) This theory is based on liberalism as a political doctrine, which 'assumes that it is a characteristic feature of a free democratic culture that a plurality of conflicting and incommensurable conceptions of the good are affirmed by its citizens.' (p. 248) In contrast, classical utilitarianism, and other conceptions of justice, for example Plato, Aristotle and the Christian tradition as represented by Augustine and Aquinas all hold that there is but one conception of the good which is to be recognised by all persons, so far as they are fully rational.

Criticism of the foundations of utilitarianism has played a major role in Sen's work, and even a brief account of his contribution to the debate on welfarism would go beyond the limits of the thesis. Some major concerns, however, are particularly relevant for the approach of this analysis. Sen emphasises that the utilitarian approach is problematic because of its focus on a single maximand, utility, disregarding its distribution among people. Utility itself is problematic, because it does not distinguish between different sources of pleasures or pain. Actions, rules, and institutions matter only to the extent they promote individuals' happiness.

Utilitarianism is not really interested in persons as such, and that a person is viewed by a utilitarian as nothing other than the place in which that valuable thing called happiness takes place. It does not ultimately matter how this happiness happens, what causes it, what goes with it, and whether it is shared by many or grabbed by a few. All that really matters is the total amount of this 'marvellous' thing: happiness or desire-fulfilment.' (Sen 1984c, p. 308)

Interestingly, in much of his work Sen focuses mostly on utility as happiness or desire fulfilment. As Sugden notes in his review of *Inequality Reexamined*, Sen 'says very little about revealed preference welfarism, effectively treating it as a nonstarter' (1993, p. 1949).

Sen's attack on utility may sound controversial: while he acknowledges the value of happiness as an element of well-being, at the same time he also condemns it, being a measure of utility. The criticism, however, does not refer to happiness per se, rather its use as a single object of value.

It is quite easy to be persuaded that being happy is an achievement that is valuable, and that in evaluating the standard of living, happiness is an object of value. [...] The interesting question regarding this approach is not the legitimacy of taking happiness to be valuable, which is convincing enough, but its exclusive legitimacy.' (Sen 1987, p. 8)

One major fault of using happiness as a unique measure of well-being may be called the problem of the 'adaptive preferences'. A person, who lives in thorough deprivation, may not aspire for things, which are not attainable for her. Jon Elster (1983), using the tale of sour grapes, describes the adaptation process in the following way: although desiring the grapes, the fox, seeing that he cannot reach them, judges that they are sour. Nussbaum (2001) criticises the narrow focus of Elster's argument and says that changes in preferences can often be a good thing, for example when people adjust to reality rather than sustaining unrealistic aspirations (she cites her own personal desire to be the world's best opera singer). She argues that a substantive theory of justice and central human capabilities is essential in order to identify desires (and unrealisable desires). In addition, discrimination and abuse are violations of personal liberty even if people adjust to them.

In sum, Sen's theory of capabilities is distinct from other theories of justice, both in terms of the identification of the object of value and also in terms of its justification. For utilitarians, it is utility that matters, for libertarians, it is rights, and for egalitarians resources are the basis of evaluation. Rawls' theory of justice uses the concept of primary goods.

Sen's metric is based on capabilities. Sen's theory of the social good may be called an end-state theory, which is distinct from procedural criterion of fairness, concerned with the evaluation of rules. Capabilities, and especially functionings seem to provide a suitable base for empirical comparisons of inter-personal well-being. The main value of this conceptual framework lies in its focus on positive freedom, the realisation of this freedom, its concern with ends, not means, the acknowledgement of interpersonal differences in converting resources into states of being, and the provision of an absolutist core for interpersonal comparisons.

1.2 MAKING SEN(SE) IN EMPIRICAL RESEARCH

Although Sen's work received wide acclamation for advancing normative theory, many scholars expressed their scepticism on the empirical applicability of his theory of capabilities. Sen refrains from 'completing' his framework, by providing a comprehensive list of capabilities, or even that of basic capabilities. He does not give a clear guidance on empirical application either (see discussion later). Despite the numerous attempts at empirical conceptualisation, it seems that there is limited success in a comprehensive and direct application of his theory. Nolan and Whelan find that 'the approach has had little or no impact on empirical studies which seek to measure and understand poverty' (1996, p. 85). Piachaud argues that 'Sen's absolute goals, save that of physical survival, are too vague to be of any theoretical or practical use' (1987, p. 148). How has Sen influenced the empirical literature? And how can the existing literature be evaluated in terms of Sen's discussion on the normative basis of social research?

Existing operationalisation of the capabilities approach predominantly uses *functionings* as an approximation of capabilities. Capability has not yet gained scope as a major currency of interpersonal comparisons. Empirical literature based on functionings can identify its roots in existing 'social indicators' research and the 'basic needs approach'. What Sen seems to have provided, is a theoretical depth to the 'not deeply founded approach' (1987, p. 25). Although these approaches, according to Sen, have the merit of redirecting attention from income, from GDP and economic growth to other aspects of social achievements, they mostly remain preoccupied with commodity possession instead of examining what lives

people actually lead or can lead. Based on this, primarily two major objects of value can be distinguished in empirical research: income, and well-being or functionings.

Place of functionings in the field

My main concern related to the extensive literature on quality of life and living standards is how it actually relates to Sen's approach. For this, first I try to draw a map of the major empirical concepts and applications based on their choice of the evaluative space and the methodology of evaluation (Table 1), and then discuss briefly a few selected major works. Literature on both objective and subjective measures of well-being will be discussed in more depth in later chapters of the thesis.

Choices in empirical studies involve firstly a choice of the object of value, whether it is income, or functionings, secondly a choice on the general concern, whether it is a specific basic standard or overall inequality, and finally, a choice on methodology, whether aggregate or distributional measures are used, and if any, what weighting method is to be employed. This classificatory exercise, however, at times proved to be difficult. Studies often use various measurement units, combining measures of income, material resources and functionings, e.g. Swedish Level of Living Research (Erikson and Åberg 1987), the Living Standards Measurement Survey of the World Bank (e.g. Chander, Grootaert and Pyatt 1980; Grosh and Glewwe 1995). In these ambiguous cases the criterion for classification was whether there was a detectable intention in the projects to measure functionings or not. Studies which are based on income often use a commodity-based standard to define the desirable income level. For example, the so called 'budget standard approach' in poverty research defines minimum consumption requirements, then after pricing the goods, translates it to the metric of income. Such cases are classified as studies of income, since they do not focus on the possession of certain commodities, but only on levels of income.

The Breadline Britain Survey was first systematic attempt in Britain to define what constitutes the minimum standard of living in the public's view, and also to assess in what ways people fail to meet these standards (Mack and Lansley 1985). The specific virtue of

this approach is that the authors try to measure *enforced deprivation*³. Mack and Lansley's way of identifying social consensus thus includes subjective standards, because households are asked whether their lack of a specific item is due to their choice or they cannot afford it. This approach thus measures resources, not directly states of individuals. The motivation of the authors, including their effort to go beyond the single measure of income, suggests, however, that this approach may be regarded as an attempt to measure functionings⁴.

Table 1.1 Classification of major empirical concepts and applications

		General concern		
		Minimum standard	Overall inequality	
		Summary measures		Distributional measures
Major object of value	Income	Objective approaches		
		Headcount Poverty gap Relative poverty lines Absolute poverty lines (e.g. 'budget standard' approach) Sen index ⁵ Townsend's deprivation index ⁶	Lorenz curve; Gini coefficient Atkinson index	Analyses of income distribution or income mobility
		Subjective approaches		
		Leyden poverty line		
		Objective approaches		
	Functionings or well-being	Human Poverty Index-2 Breadline Britain Survey Studies on deprivation ⁷ Studies on social exclusion ⁸ EU indicators on social inclusion ⁹	Human Development Index (HDI)	Swedish Level of Living Research; Living Standards Measurement Study (World Bank) Comparative Scandinavian Welfare Study Norbalt Living Condition Project ¹⁰ Research on well-being in the European Union and Eastern Europe ¹¹
		Subjective approaches		
				Comparative Scandinavian Welfare Study Sociological and psychological literature on subjective well-being 'Economics of happiness' ¹²

Nolan and Whelan start from the hypothesis that income poverty is inadequate as a measure of the extent and nature of poverty, if poverty is conceptualised in term of

³ This systematic attempt seems valuable in my view, although there are some methodological doubts on the measurement of involuntary deprivation. As Piachaud notes, a major problem is their treatment of those households which cannot afford necessities but afford non-necessities (1987, pp. 149-152).

⁴ Sen regards Mack and Lansley's work to be related to his approach, but does not specify how (1992, p. 39).

⁵ For definition, see (Sen and Foster 1997)

⁶ (Townsend 1979)

⁷ e.g. (Nolan and Whelan 1996; Layte, Maitre, Nolan and Whelan 2001)

⁸ e.g. (Burchardt, Le Grand and Piachaud 2002)

⁹ (Atkinson, Cantillon, Marlier and Nolan 2002)

¹⁰ (Aasland 1996; Groggaard 1996; Knudsen 1996)

¹¹ (Comia 1994; Micklewright 1999; Micklewright and Stewart 1999; 2000; Micklewright and Ismail 2001; Stewart 2002)

¹² e.g. (Di Tella, MacCulloch and Oswald 2001)

exclusion from the life of society because of a lack of resources (1996). Instead, they propose a poverty measure, which takes into account both income and deprivation. Deprivation is measured by various indicators of life-style, including household amenities, housing conditions, nutrition, clothing, and leisure. To account for differences in tastes across people the authors distinguish 'enforced lack of resources', those items which the household lacked and said that *it was because could not afford them*. Their finding is that the overlap between income poverty and deprivation is weak. 'About half the households below income poverty lines were experiencing enforced basic deprivation, while substantial numbers above those lines reported such deprivation' (p. 149)¹³. Thus income is not an adequate 'short cut' if someone wants to measure multi-dimensional deprivation. A possible main explanation is that current income is an inadequate proxy for actual financial resources. Using both savings and income as an alternative poverty criterion, however, the authors still find that the explanatory power of this criterion is weaker than measures of deprivation, e.g. for explaining people's experience of financial strain. The reason for this is that differences in individuals' backgrounds, needs and other 'social assets' also contribute to variations in life-styles. According to Nolan and Whelan, this provides a strong case for the use of multiple measures of deprivation. Later the authors applied a similar approach for cross-country comparison, using the European Community Household Panel Survey (Layte et al. 2001; Whelan, Layte, Maitre and Nolan 2001).

The Comparative Scandinavian Welfare Study also uses resources, but its primary focus is much broader, It incorporates measures of education, health, employment, social relations, political activities and opportunities to live in harmony with nature (Allardt 1993). Subjective measures gained equal emphasis to objective ones in the design of the survey. The subjective indicators include dissatisfaction/satisfaction with living conditions, unhappiness/happiness about social relations and about personal growth.

Subjective approaches measure well-being on the basis of people's self-reported states. They usually investigate individuals' happiness in general or their satisfaction with particular aspects of their lives, such as income, living standards, health or other functionings. 'Subjective well-being' has an extensive literature, including economics, sociology and

¹³ Basic life-style deprivation indicates lack of food, clothes and basic necessities. This is distinguished from secondary life-style deprivation, which includes items such as leisure activities, and from housing deprivation.

psychology (for a review of the relevant literature, see chapter 5). The empirical literature on the 'economics of happiness' uses survey measures of happiness as proxies for utility (see e.g. Di Tella et al. 2001). Although these studies use this measure of happiness exclusively, they could also be interpreted as essential analyses of a particular, and very important element of well-being. The related literature will be discussed in detail in chapter 7.

An early application of this subjective approach in economics is the so-called Leyden approach. This has been derived by a research group, which worked at the University of Leyden in the seventies and eighties (see e.g. Van Praag, Spit and Van de Stadt 1981). The basic question module is the so-called Income Evaluation Question, which follows: 'What monthly income (net of taxes) would you consider for your household as: very bad, bad, not bad not good, good and very good?' The respondent is then supposed to give exact amounts of these in the local currency. This information is used for the compilation of an overall subjective poverty line, and also of a welfare function.

Sen himself has contributed to the empirical literature in the field of quality of life research, and has applied his capability approach, with paying special attention to the developing world, especially India. His contribution to quality of life research included analysis of mortality as an indicator of economic success and failure (Sen 1998), studies of sex bias in health conditions, undernutrition and poverty (Kynch and Sen 1983; Sen 1984a; 1985). Sen in his 1998 study presents a major argument for the use of measures other than income in comparative research (1998). He found that Harlem men are overtaken in terms of survival even by the Bangladeshis, meanwhile they are many times richer measured as income per head than the latter group. He does not argue that income should be abandoned in economic analysis, rather that it should be supplemented by other measures. Sen asserts that 'personal income is certainly a basic determinant even of survival and death, and more generally of the quality of life of a person' (p. 23).

A major, and maybe the most influential explicit application of Sen's theory is the Human Development Index (HDI) (with Amartya Sen's contribution as a consultant), published yearly in the Human Development Report by the UNDP starting from 1990, as the now widely accepted alternative to GDP for comparing human well-being between countries. The report interprets human development both as 'the process of widening people's

choices and the level of their achieved well-being' (UNDP 1990, p.10). The measurement of human development focuses on three essential elements of human life: longevity, knowledge and decent living standards. These elements are described by means of life expectancy at birth, illiteracy and school enrolment, and GDP per capita. (HDI is a composite index based upon the weighted average of these indicators.) The HDI rankings of countries may differ significantly from their ranking based upon GDP per capita.

The HDI index is a simplified approach to tackle and measure the selected three elements of well-being, and represents a compromise for the sake of ensuring comparability and accessibility of data. Life expectancy, illiteracy and school enrolment may be called measures of 'basic capabilities'. GDP per capita, however is a rather indirect approximation of capabilities. Thus, similarly to the classic psychological approach of Maslow (1970), the conceptual choices of the HDI imply a hierarchy of needs, where the satisfaction of physical needs is essential prior to the appearance of social, emotional and other higher-ranked needs. These elements of well-being, nevertheless, do not provide a full description of human development, as also acknowledged by the report. 'Additional choices, highly valued by many people, range from political, economic and social freedom to opportunities for being creative and productive, and enjoying personal self-respect and guaranteed human rights.' (UNDP 1990, p.10) Another shortfall of this measurement is the lack of concern of a society's human freedom, first of all of the fact if individuals live in a democratic or an authoritarian polity. This is also revealed in the first report, indicating that the exploration of links between human freedom and human development is indeed necessary in the future.

Most criticism of the construction of the HDI has targeted the income component. Ravallion, for example, challenges the implicit trade-offs built into the HDI between income and longevity (1997). The calculation of the income index in the formula is based upon the assumption of decreasing utility of income and the diminishing returns to transforming income into human capabilities. Therefore a world average income (\$5,990, \$ based on PPP, purchasing power parity) is taken as a threshold level and any income above this level is discounted. In response to these, the UNDP has revised its methodology for

discounting income. The new formula¹⁴ does not discount income as severely as the one earlier, and it discounts all income, not just the income above a certain level (UNDP 1999a, p. 159). As a result, rising income gets recognition as a potential means for further human development. The new methodology, however, brought some problems of comparability with indices of previous years¹⁵.

The definition of human well-being used in the HDI does not seem to be adequate for the characterisation and comparison of industrial countries. Probably as a response to this problem a special index was introduced in 1998, the human poverty index for industrial countries (HPI-2). The dimensions of deprivation defined as the basis of this index are quite similar to those reflected in the HDI – longevity, knowledge, a decent standard of living, plus social exclusion. The standards of measurement are adjusted to these countries, for example deprivation in knowledge is measured by the percentage of people who are functionally illiterate, which is more adequate measure than simple illiteracy in these countries. The incorporation of social exclusion, measured simply as the rate of long-term unemployment, also reflects social norms of industrial countries, where participation in the labour market is increasingly perceived as a criterion of social inclusion (e.g. Atkinson et al. 2002).

Since 1990, the launch of the first Human Development Report, the concept of HDI as a measurement of human development has been significantly extended. By 1999 the United Nations Development Programme published various indicators beyond the human development index; a gender-related development index and a gender empowerment measure, and two types of human poverty index, for developing and for industrial countries, as mentioned above (UNDP 1999a). The incorporation of the gender perspective is the first step within this comparative framework to actually indicate the distribution of capabilities within societies. These gender indices confirm the existing results of previous empirical research on relative deprivation of women in most societies. Economic historians have expanded the use of the HDI as well, by applying it as an indicator of development in a historic perspective. For example Crafts has compiled the

¹⁴ $W(y) = (\log y - \log y_{min}) / (\log y_{max} - \log y_{min})$, where y is a specific country's actual per capita income in PPP\$

¹⁵ The UNDP made some effort for recalculating previous indices on the basis of the new formula, but it was partial. For many countries, including Hungary, they did not manage to compute the HDI of the previous year, thus the HDI has lost its potential for time-series analysis in these countries.

HDI for 16 advanced economies since 1870 and argues that conventional measures of economic growth seriously understate the rate of improvement in living standards (Crafts 1997).

Although starting from a different basis, the recommendations of the United Nations (UN and ILO 1954; Drewnowski and Scott 1966), the Swedish Level of Living Research¹⁶ represents one potential implementation of Sen's capability concept (Erikson and Åberg 1987; Erikson 1993). The research is based on a one-country longitudinal survey especially designed for its purposes and describes the changes in living conditions between 1968 and 1981. These inequalities are outlined in distributional terms as well, between different social groups, thus providing a detailed analysis of relative well-being based upon various group characteristics like gender, age, occupational group and region. The study has used descriptive indicators, thus was based on actual situation of individuals, irrespective of their satisfaction with their current situation. The indicators incorporated both economic resources (income and wealth), and other components such as health, employment, education, housing, social integration and political resources.

A few studies have used non-monetary dimension of well-being for evaluating transition countries, but it is far from becoming a widely used exercise. A major international comparative study was implemented through the NORBALT Living Condition Project, which comprises national reports from five different regions in the three Baltic states of Estonia (Groggaard 1996), Latvia (Aasland 1996), and Lithuania and two Russian areas (Knudsen 1996). The surveys were conducted on a standardised methodological base, thus allowing comparisons between the areas. There is a limited dynamic analysis included in the project, in case of Lithuania, where a rather similar survey was conducted in 1991 and 1994. In another international comparative study, for Central-Asia, Falkingham uses capability-based indicators for measuring well-being (Falkingham 1999). Her research is based on existing data, first of all the national Human Development Reports and UNICEF data. The recent study by Micklewright and Stewart focuses on a population subgroup,

¹⁶ 'Level of living' is a specific term used in the Swedish Level of Living Research. The designers of the research wanted to emphasise its difference from standard of living, because 'level of living' uses not only resources, but also states and achievements of individuals. Standard of living is however, far from being a well-defined concept, and various 'divergent and rival views' co-exist within it. In Sen's terminology, capabilities can be actually used for the assessment of living standards, thus there seems to be no contradiction between the standard of living and capabilities (Sen 1987).

children, and compares their level of well-being in the European Union to that of the applicant countries (2000). They use measures of economic welfare, health and education. None of these studies, however, seems to share the main concern of the Swedish Level of Living Research, namely the comparison of well-being between various socio-economic groups.

Analysis of what? Specification of the object of value

The use of capabilities seems to be especially relevant for the analysis of the countries of Central-Eastern Europe for various reasons. First of all, capabilities are valuable per se. It is the human condition and the choices people have which are the final test of the social consequences of transition. Secondly, income is an inadequate indicator of well-being during a major dislocation. Crucially change in economic system could produce a step change in the relationship between income and well-being. So before and after change, difference in income correlates with well-being, but not over transition itself. In addition, income may not be able to explain individual differences in well-being, such as health state or nutrition. Income analysis faces serious difficulties related to the intra-household allocation of resources. Individual level indicators of well-being avoid external judgements on this matter, and may be particularly useful in countries with intense cultural diversities. Income may only partially reflect the effects of substantial economic changes, like the restructuring of the labour market, the redistribution of wealth and privatisation of state assets, the reorganisation of social services or changes in the relative prices of goods (e.g. due to cutbacks in price subsidies). Point-in-time income data inevitably show transient shocks as well, disregarding households' ability to pool over time and their ability to adjust their consumption patterns (Cornia, Fajth, Motivans, Paniccia and Sborgi 1996). Income indicators may be deficient for describing resources themselves, due to measurement failures. Problems relating to hidden income, resulting for example from black market activities or own production, or tax evasion may substantially distort available data in certain countries.

Capabilities thus seem to have great potential to evaluate Eastern-European changes. The question of how to do this immediately arises. Sen proposes three alternative approaches for the evaluation of capability sets (Sen and Foster 1997; Sen 1999b). The first is the "direct approach", which examines and compares vectors of functionings or capabilities.

Sen calls this 'the most immediate and full-blooded way' (1999b, p. 81). The second, the "supplementary approach" uses both traditional procedures of income comparisons, but supplements them by capability considerations, 'often in rather informal ways' (p. 82). This means either the direct comparison of functionings, or that of variables other than income, which are expected to influence capabilities. Lastly, the "indirect approach" remains focused on incomes, appropriately adjusted. It uses various equivalence scales to equalise family incomes in terms of capability achievement. For example, 'family income may be adjusted downward by illiteracy or upward by high levels of education' (p. 83). Sex bias within the family could also be assessed.

The "indirect approach" has the advantage of using income, which, beyond being familiar, allows more articulation and easier interpretation. The difficulties, however, are not negligible. In order to define the equivalence scale, we need to identify the relevant capabilities, and their influence on income, the conversion rate. This and the definition of the relative weights on how various capabilities influence incomes necessitates certain judgements. In this sense this approach is not different from the direct comparison of capabilities or functionings.

Sen also emphasises that the primary object of evaluation should be capabilities, not functionings. The valuable informational content of capabilities, as representatives of positive freedom, is acknowledged by most scholars in the field, however the complexity seems to be a major barrier of its widespread empirical application. Discussions of the freedom of choice are rather formalised and theoretical (e.g. Pattanaik and Xu 1990; Arrow 1995). A full empirical application would need to investigate all potential choices of people, including those they are not aware of due to their diminished expectations. Who could detect such capabilities? It seems doubtful than any external viewer can make a judgement on this, being able to identify those options which are not known but realistically attainable by an individual. Also, how could such an exercise avoid paternalism, and arbitrary discretion? A more limited exercise, the mapping of the well-known options by individuals would avoid such problems, but it would inherently bring biased outcome due to individual variations of consciousness and rationality. Also, the information content of such investigation would increase to great complexity. This would also raise issues like whether realised capabilities are to be given specific weight and if yes, how.

Sen, as discussed before, does not provide a specific account of what capabilities or functionings are to be assessed, thus their identification seems to be the prior step of any evaluative exercise. All what Sen defines are some examples, e.g. of basic capabilities (1982, p. 367). Nussbaum derives her list of 'basic human functional capabilities' from an Aristotelian account of a good life (Nussbaum and Glover 1995). Although she calls her list 'basic', it incorporates a wide range of items, including personal intellectual and psychological factors, for example 'being able to laugh, to play' (p.84), and also social and political elements. Similarly, *expert judgement* is the basis of Desai's list of basic capabilities (1995, p. 193). Another way of defining the valuable set is by *social consensus*. This approach aims to define contemporary standards, the commonly accepted values in the society. Such consensus is the basis of defining primary goods in Rawls' theory of justice. In their empirical work, Mack and Lansley base their analysis of poverty on an investigation on social standards regarding the need for particular commodities and the related functionings (1985).

Sen acknowledges that the use of functionings ('the option actually chosen') can be a way of assessing capability sets. (1994, pp. 339-40). Functionings are used as the basis of most empirical applications. Erik Schokkaert and Luc Van Ootegem apply Sen's concept to the Belgian unemployed (1990). Their identification of functionings is rather pragmatic; a result of factor analysis of 57 survey questions (elements of functionings). Their investigation includes extensive survey of psychological characteristics of the unemployed as well. This is a particularly interesting aspect of their application, not only because they recognise that psychological difficulties are often a consequence of being without a job, but also because such functionings may be particularly relevant in the context of richer countries. Schokkaert and Ootegem refer to Sen¹⁷, implying that Sen acknowledges the importance of 'psychological' functionings in richer countries compared to 'material functionings', which may show little variation (1990, p. 432)¹⁸.

¹⁷ (Sen 1985, p. 46)

¹⁸ This is, unfortunately, a misrepresentation of Sen's argument, since he does not mention psychological functionings at all (Sen 1985, p. 46; or in a different edition: Sen 1999a, p. 30). Sen refers to only social, cultural and intellectual functionings (all of them being objective, not subjective or self-evaluation), such as the ability to have friends, to participate in the life of the community, to travel, etc. The 'psychological' functionings, however, do seem to be a useful addition to this list. Moreover, they are consistent with Sen's interpretation of well-being, as noted before, which includes happiness as well.

In his “supplementary approach”, as mentioned earlier, Sen acknowledges the use of income together with functionings or capabilities (Sen 1999b). Such hybrid techniques may be particularly useful, when ‘data limitations are rather pervasive and apply to resources *as well as* functionings’ (1994, p. 338). The supplementary approach has been used by numerous empirical studies, like the Swedish Level of Living Survey (Erikson and Åberg 1987), and the Comparative Scandinavian Welfare Survey (Allardt 1993). Chiappero Martinetti (1996) argues that resources as well as functionings and capabilities should be all included into the assessment of the standard of living. She proposes the use of ‘fuzzy set theory’, which provides various alternative aggregation procedures for all elements of well-being into a ‘membership function’¹⁹. She produces a good visual presentation of the problem by her analogy of an “expert system”, but overall provides a rather partial picture. Her proposal for the distinction between choice and constraint as a cause for low levels of functionings does not seem to be convincing. It is not clear how she can account for ‘taste’, and distinguish it from unobservable factors. With this, the core of her argument, the inclusion of freedom as a component of well-being remains unconvincing. This problem however leads us already to the issue of evaluation methods.

Methodology of evaluation

The chosen object of value greatly determines what kind of problems we face at the selection of the applied methodology. If someone uses the direct approach, trying to compare functionings or capabilities themselves, he can opt for

“ ‘total comparison’, involving the ranking of all such vectors vis-à-vis each other in terms of poverty or inequality (or whatever the subject matter is);

‘partial ranking’, involving the ranking of some vectors vis-à-vis others, but not demanding completeness of the evaluative ranking;

¹⁹ Fuzzy set theory is a theoretical concept introduced in the mid-1960s, which has been extensively used in decision-making support models, and in science, including artificial intelligence and expert systems. Recently it drew attention in inequality and well-being analysis as well. The brief, non-formal definition is the following: ‘Fuzzy set theory substitutes the characteristic function of a crisp set that assigns a value of either 1 or 0 to each element in the universal set (discriminating between members and nonmembers of the crisp set), with a generalized characteristic function (called a membership function) which varies uniformly between 0 and 1. Larger values denote higher degrees of membership’ (Chiappero Martinetti 1996, p. 44). This enables the inclusion of both qualitative variables measured on an ordinal scale, such as health condition or subjective opinions, but also dichotomic variables with values of 0 and 1.

'distinguished capability comparison', involving the comparison of some particular capability chosen as the focus, without looking for completeness of coverage" (Sen 1999b, p. 82).

Sen expresses his doubts in several cases of the use of total ranking, and reveals his preference for partial ranking²⁰. Gaertner's attempt to compare vectors of basic functionings for 130 countries confirms this (Gaertner 1993). He finds for example that simple vector dominance held only in 16% of binary comparisons among Eastern-European countries (p. 44). Similarly, Chakraborty, comparing 10 countries with low HDI ranks does not find a single case of vector dominance (Chakraborty 1996). Both of them conclude that the consequence of this is that a certain weighting is necessary for comparisons.

Various weighting mechanisms have been proposed in the literature. Dasgupta uses the so-called Borda method for ranking poor countries based on certain major social indicators (1993, p 108-116). Chakraborty proposes a consensual approach, where the aggregation of individual's functionings is based on weights defined by all members of the society (1996). Chiappero Martinetti's fuzzy approach provides another potential method, although its full empirical application is still lacking (1995; 1996). Deutsch, Ramos and Silber uses notions of production economics (the input quantity index and the output quantity index) to derive single measures of quality of life and standard of living, which is then applied to the British Household Panel Study data (Deutsch, Ramos and Silber 2000).

The necessity of weighting is, however, can be challenged on various grounds. Firstly, Sen himself emphasises that the components of the standard of living are valuable per se.

'If it turns out that there has been an improvement in, say, the standard of nourishment but a decline in the standard of being sheltered, that itself may be an interesting enough assessment, even when we are unable to decide whether 'altogether' this indicates an improvement or a deterioration.' (Sen 1987, p. 33)

Elsewhere he goes on to say that the simultaneous assessment of different objects of value can actually capture the 'constitutive plurality' of the standard of living (p. 36).

The second major reason for scrutinising components of well-being is policy oriented. Individual indicators may be used as 'output' measures of past and existing government policies and can provide useful information for policy-making. The third argument can be made from a social research point of view. Aggregation implies information loss per se, which may not be desirable especially if the focus of the research is distributional, concerned with relative well-being of various social groups compared to each other. An interesting research question may well be for example to test whether there are different social groups which have health problems and low levels of education or it is one specific group which scores low on these measures of standard of living. The use of a single indicator has the implicit assumption that there is a specific social group which is well-being poor and another which is well-being rich. In addition, Micklewright emphasises that the results of a single index are sensitive to the arbitrary choices made at the index's construction (2001, p. 48). In conclusion, all this provides a strong case for a *multi-dimensional way of measuring well-being*.

1.3 AIM AND METHODOLOGICAL BASIS OF THE THESIS

As argued before, the capabilities approach seems to provide an adequate basis for analysing the impact of transition in Eastern-Europe. During such a substantial social restructuring income indicators may provide only a partial picture, and they do not seem to explain sufficiently individual differences in well-being (Cornia et al. 1996). Hungary appears to provide an excellent example for the application of this approach. It has gone through a major economic and social restructuring, and the process seems to be by and large over. The available datasets, national representative household samples are rich and reliable, and seem to provide a suitable basis for the analysis of well-being. The coexistence of these factors make it a useful test case for modelling the social consequences of transition.

²⁰ The formal definition is the following: 'If x has more of some object of value and no less of any than y , then x has a higher standard of living. I shall call this the 'dominance partial ordering' (Sen 1987, p. 4).

Inequality in transition: research questions and hypotheses

The window of opportunity to change positions in social spaces, to counteract effects of inequality, is a narrow one. It is limited to the time of transformations. As a new social order settles, it is likely that those who are on the top will find themselves able to maintain that position, and those at the bottom will end up staying there as well. Change is the exception and reproduction the rule of social orders, be they communist or capitalist.' (Széleányi and Kostello 1996, p. 1095).

This passage explains the motivation of the analysis of transition. 'Positions', as explained before, in this analysis are interpreted as level of well-being, the object of value used here. Social divisions of well-being may help to understand the main features of future inequality. Changes in the relative position, on the other hand, shows how this window of opportunity has opened and for whom.

The thesis seeks to answer the following questions:

1. What were the differences in the well-being of various socioeconomic groups in Hungary at an early point of the transition, 1991-1992 and at a later phase, 1997-1998?
2. How did these differences evolve during the period 1992-1998?
3. What is the added value of the analysis of inequalities of various indicators of well-being compared to using current income measures?
4. How is satisfaction related to objective well-being, human capital and other personal characteristics?
5. Which social groups have become more satisfied, and which less satisfied during transition? In other words, who are the 'winners' and 'losers' of transition in terms of happiness?

I am concerned with inequality, rather than poverty or social exclusion. The focus is thus on the overall distribution of well-being, not just on the bottom of the scale, which would imply the use of a certain minimum standard. This broader approach thus avoids the use of simple dichotomies, and also the problems of justifying a single cut-off line. Erikson, in his own argument for inequality rather than poverty, refers to underlying ideological differences (1993). He suggests that 'poverty is the main welfare problem for social liberalism, while inequality is the main problem for social democracy' (p. 80). He explains that the Swedish institutionalised welfare model functions 'on a par' with the market, and is

concerned with diminishing disparities between population groups. This also explains the values of Swedish social research. In contrast, the residual welfare model aims for the correction of market deficiencies and focuses on people in the greatest need. In accordance with Erikson's view, I agree that there is an obvious value choice in choosing inequality as the subject of inquiry. I would like to clarify that this concern, however, is not exclusively related to the role of the welfare state, but rather it is a way of assessing the overall functioning of the market, the welfare state and the family as well. All of these are inherent parts of the 'welfare regime', as also argued by Esping-Andersen (1990; 1999).

The meritocracy thesis

For the field of sociology the Eastern European transition is of major interest, not only for the magnitude of social changes, but also because it provides an opportunity for testing general theories of social stratification and mobility. One major issue, which may be called the issue of meritocracy, is whether the social positions of individuals are primarily determined by their social origins or by their own efforts. In the terminology of social mobility research, the question refers to the strength of association between class of origin and the class of destination. The 'industrialisation and modernisation thesis' claims that increasing industrialisation and modernisation leads to declining inequalities by individuals' origin, and status attainment is increasingly determined by their investment in schooling. How does this relate to economic transition in Eastern Europe? Róbert argues that transition brought economic crisis, which is expected to result in an opposite trend, a rise in inequality by origin and a weakening relationship between higher levels of education and high social status (Róbert 2001, p. 124). The alternative argument, however, appears more appealing: the increased role of the market as a coordination mechanism should strengthen the relationship between individual effort and reward. Human capital, skills and knowledge, and social capital, personal relations²¹, are expected to matter increasingly. It seems, however, that these two indicators are strongly related to each other, and also to an individual's origin. The systematic test of these hypotheses is not aimed at in this current research. The main reason is that these theories describe achievement mostly as a single

indicator, e.g. that of class position. A multidimensional test of causality in individual's life history would go beyond the scope of this work, and is altogether a different research question. What is a more relevant hypothesis from our point of view?

Human capital, although seems to be influenced by both 'luck', e.g. inherited abilities, and also by effort, may be used as a proxy for 'merit' in this sense (although not necessarily in the moral one). Such an approach is pursued in much of the economic literature, measuring e.g. returns to skills. Skills, however, are only partly measurable, and unobservable factors may become increasingly important over time, as US data for 1963-1989 (Juhn, Murphy and Pierce 1993) and Russian data for 1991-1994 suggest (Brainerd 1998). A sociological explanation is that 'social skills' may play an increasing role (Jackson, Goldthorpe and Mills 2002).

Increasing returns to human capital may have other reasons as well. In their theoretical discussion on the consequences of transition, Flemming and Micklewright note that in a new economic system with liberalised prices 'abnormal quasi-rents will accrue [...] to the owners of certain types of human capital' (2000, p. 879). The returns to human capital (and thus overall earnings inequality) depend on the homogeneity or heterogeneity of labour, on labour mobility between enterprises and locations, and also on capital/labour substitutability (*ibid.*, p. 878, Table 4). The latter means that if profits increase and as a result investments rise, they will be concentrated in those areas, which bring the highest return. Investment in human capital will depend on the capital market, and on the level of earnings. It may happen that low earnings would limit investment in the education of worker's children, which may sustain positions which yield high quasi-rents for a long period and thus would contribute to a cumulative deterioration in the distribution of earnings.

As the consequence of a move away from a 'bureaucratic coordination' mechanism toward greater 'market coordination'²² we can expect that instead of ideological definitions of

²¹ Social capital refers to the 'resources that inhere in family relations and in community social organization and that are useful for the cognitive or social development of a child or young person' (Coleman 1990, p. 300). Coleman, in his outstanding work on social theory, analyses relations of authority and of trust, and also norms as various forms of social capital. Social capital is a major focus of the French sociologist, Bourdieu as well.

²² Kornai's terminology (1992b, pp 91-109). See also discussion in the introduction of chapter 2.

'merit', rewards are more attached to performance, defined as economic performance. This implies that those individual characteristics, which do not influence a person's productive capacity, should not be factors of inequality. So while educational attainment and labour market status are expected to be determinants of well-being, gender and ethnicity in themselves should not be. Some existing evidence, however, suggests that this may not be the case. Income poverty is increasingly associated with ethnicity and gender. Emigh, Fodor and Szélényi speak about the 'racialization and feminization of poverty' (2001). Ladányi goes further, speaking about a 'Roma underclass', primarily referring to the spatial concentration of the Gypsy population (2001). These studies, however, use only bivariate analysis for measuring the relationship between ethnicity and income, or ethnicity and other indicators of well-being. Despite recent efforts to understand the situation of women (Lévai and Tóth 1999; Pongrácz and Tóth 1999), it seems that overall there is still limited evidence on the ethnic and gender dimensions of well-being in Hungary, beyond the traditional measures of income and labour market participation. What are these divisions? Can the differences be explained by educational and demographic differences?

Possible losers: the Romany population

There are various accounts of the social marginalisation of the Gypsy population²³, or the Romany as they prefer to call themselves²⁴, and also of a prevailing discrimination against them. As the Helsinki Human Rights Watch notes 'they are almost entirely absent from the visible political, academic, commercial and social life of the country' (Guglielmo and Waters 1996, p. 1), although they comprise around 5-6 percent of the total population²⁵. Their major educational disadvantage [only about half of Romany children finish primary school, and only 5 in 1000 complete secondary school (Kertesi 1995)] is one of the major reasons why they were particularly hit by lay-offs during the economic restructuring. The

²³ The Gypsy population is not a single community, but consists of a number of distinct groups. These groups have unique historical, cultural and linguistic traditions. The surveys used here, similar to most other household surveys, cannot make distinctions beyond the generalised 'Gypsy' identifier. Thus I will use a single category of Gypsy ethnicity. Nevertheless, we have to be aware of their heterogeneity. About three fourths of Gypsy population are Hungarian speakers, and characterised by the most advanced degree of assimilation. One fifth of the is Olah, or Romany-speaking, and about 50,000 speak Beash, a dialect of Romanian (Guglielmo and Waters 1996, p. 7).

²⁴ Roma means 'man/men' in their language.

other major reason, as some powerful empirical analyses show (Kertesi 1994; Ábrahám and Kertesi 1996), is the regional concentration of the Romany population: they tend to live in areas and small settlements particularly hit by unemployment. Standard economic theory and compositional differences, including educational and demographic differences, can only partly explain the significantly higher unemployment and inactivity of the Gypsy ethnic group. The large remaining residuals ($\frac{1}{2} - \frac{3}{4}$) suggest that there are strong signs of possible discrimination. A striking finding of Kertesi's study is that the willingness to work of the non-employed Romany is much greater than that of the non-Romany: the occurrence of those who are actively seeking work is one and a half times as high among the first group than in the latter. This contradicts public opinion, which often blames the specific 'attitudes' of the Gypsy population for their low rates of activity.

The case studies of the Human Rights Watch group confirm the assumption that there is systematic discrimination against the Romany in various public services, including public housing and education (Feher, Cartner and Whitman 1993; Guglielmo and Waters 1996). In addition, they are subject to a widespread racism and are frequently victims of violence (Guglielmo and Waters 1996). These disadvantages are expected to result in a prevailing overall pattern of relatively low well-being for the Romany population, including income, labour market situation and housing conditions. Has the Gypsy population experienced lower levels of well-being in both years, or have they also suffered increasingly from the consequences of economic transition? In other words, can they be called 'losers'?

Winners: human capital seems to dominate over past political participation

Another major issue of social mobility is that of elites: to what extent the former political elite managed to convert their old privileges into new ones. Evidence for the success of former cadres seems to be mixed. Róna-Tas finds that communist cadres were successful in converting their past political power to economic one, and did particularly well in the corporate segments of the private sector (1994). The very reason for this, he argues, was

²⁵ A promising sign of increasing ethnic autonomy was the establishment of minority self-governments for thirteen minorities, including the Romany in late 1994. The functioning of these bodies, however, had to face numerous difficulties. One of the main problems is that the minorities law did not include any substantive financial guarantee. As a result, actual funding had been 'minimal' (Guglielmo and Waters 1996, p. 115). Beyond this, the Human Rights Watch noted signs of government interference in the elections for the national Romany self-government and also in the operations of the minority governments (*ibid*, p. 115-136).

their human capital (p. 40). As Róbert points out, however, discussing these results, the effect of party membership disappears once educational level is controlled for in the model (2001, p. 177). Similarly, his analysis on the entry into self-employment shows that the impact of former party membership is not significant, using a multivariate model (Róbert and Bukodi 2001). Party membership, however, may be a rather crude proxy for past political power. In a more differentiated fashion, Szelényi argues that there are both winners and losers among the old elite. The 'big winners' are the members of the former 'technocratic elite', while the 'big losers' are the 'bureaucratic fraction of the cadre elite' (Szelényi and Kostello 1996, pp. 1093-94). Kornai emphasises that the change in the economic system brings new behaviour patterns as well. Old elites act differently in the new environment. Even a former party secretary will have to desire to earn profit and increase the value of the firm. 'Old friendships may gain the former cadre member a job for a time, but if he fails to meet the requirements, he will not have a successful second career and will probably be weeded out sooner or later' (Kornai 2000, p. 34). In sum, it seems plausible to assume that political power was not a sole source of advantage during transition to capitalism. Rather, human capital and individual achievement played a major role.

Labour market position: a key role in success

Existing evidence suggests that educational attainment and labour market position play a major role in success during transition. Habich and Spéder find that people with higher education degrees are the major winners, and also those who live in Budapest (1998). The authors also show that labour market position, first of all labour market participation or the lack of it, is a major determinant of the 'winner' or 'loser' position. In their analysis the winner and loser positions are defined in terms of income, using a panel dataset overlapping with the dataset used here²⁶. These results also imply that neither social transfers nor inter-family support could compensate for the disadvantaged labour market position.

²⁶ Winners and losers are identified by the authors both on the basis of their income levels and that of changes in the income levels. Winners are those (1) who had an income which was one and a half times or more that the average in four years out of five, (2) who had this income level in the last two years of the period, (3) whose income dynamics was more than 30% of the average. Similar categories define the losers.

The 'window of opportunity' opened for those with high education levels in general, but also for those endowed with entrepreneurial spirit. The increasing dominance of capitalism brought increasing opportunities for entrepreneurial activities. Entrepreneurship, although existed in some restricted ways before 1990, gained more legal support, and possibly moral one, too. On the other hand, they had to face increasing competition. Widening opportunity thus went together with growing constraints. What was the total outcome of these forces in terms of well-being? Measures of life satisfaction seem to provide a useful analytical tool to answer this question. Can entrepreneurs be called 'winners' of the transition? Have they become happier over time?

Income and well-being

The advancing of transformation into capitalism, the increasing dominance of market and the decline of state redistribution supposedly affected not just the social divisions of well-being, but also the relationship between various aspects of well-being. Increasing self-reliance of individual's made them increasingly liable for the promotion of their own well-being. Also, people may have been able to 'cushion' themselves during the early shock of transition against the negative impact of the decline of their incomes, by using past saving or changing their consumption patterns. This may have been less so over time. All this suggests that we can expect that the role of income as a determinant of well-being has strengthened over time.

Altogether, the thesis tries to describe the patterns of well-being and their changes over time. Due to the existing complexity of these issues, I do not aim for a causal explanation. How will these questions be answered? What are the methodological choices made?

Unit of evaluation

The thesis will use *functionings* as a unit of evaluation. Thus, we will concentrate on the 'focal point of the set', the capability option actually chosen. This has been called 'elementary evaluation'; the value of the set is equated with the value of the 'best' element (Sen 1999a, p. 39). Although theoretically this 'best' can be interpreted both as the actually chosen element or the maximally valued option from the capability set (1994, p. 340), if there is maximising behaviour these two options will coincide. For example, if individual A prefers spending her money on recreation, and individual B chooses to renovate her home, then,

although the capability set of both included the possibility of recreation and good quality housing, I will measure the value of their capabilities by the element chosen, thus by recreation for person A and housing quality for person B. In this approach the real issue is the lack of adequate housing for A, which shows up as a functioning failure for him, even though that functioning was in A's capability set. This seems to be of major policy relevance as well, given that the focus here is on basic measures of functionings. A more pragmatic reason in favour of using functionings is that there is no data available on capabilities. The informational requirement of capabilities is immensely larger than functionings, thus choosing capabilities would exclude the use of existing datasets designed for other purposes.

The elementary evaluation approach may be challenged by critiques of rationality (cognitive imperfections, time-inconsistent behaviour, or loss aversion, e.g. see the work of Kahneman and Tversky, discussed in chapter 7). People, they would say, may well not choose the options which are the best for them, thus evaluating capability sets based on the options chosen would be a poor proxy of the most valuable set. In defence, one can argue that *choices are relevant per se, especially from a policy perspective, because they reveal how people actually live*. In my view the issue of how they could live better if they were more rational is a useful complementary, but not fully adequate basis for analysis.

One essential element of capabilities, however, seem to disappear when using functionings as approximation for capabilities: freedom. Sen argues that it is more valuable to be able to choose one option out of several ones compared to having one single option, even if ultimately the choice of the individual is the same. For example, if an individual chooses to spend on food, he is better off if he had the alternative to spend on housing compared to not having it. I think that this problem is relevant first of all in the specific case of constrained choice. By this I refer to a specific situation in which an individual is limited in his choices due to external circumstances, e.g. the legal system or labour market opportunities. For example, let us assume a situation where an individual has a set of options consisting of spending on food or on a car, but not that of buying a house, due to the existence of a bureaucratic allocation system. If the individual ends up spending on a car instead of his preferred option of buying a house, he will experience constrained choice. These issues will be discussed in more details when I interpret the findings of the empirical investigation. One approximation of freedom may be based on the analysis of

material resources, because they greatly influence the capabilities a specific individual can achieve.

For the measurement of well-being various alternative indicators will be used, including income. Although resources themselves are valuable only in an indirect way in the capability framework, they seem to provide an important complementary information, which make them useful in empirical studies (e.g. Swedish Level of Living Surveys). Income indicates a potential range of choice in consumption and express possibilities for future functionings. Income will also provide a base for comparison of traditional income-based measures of inequality and capability based inequality.

Methodology of evaluation

The analysis will incorporate both objective and subjective well-being, or in Sen's terminology "standard-evaluation" and "self-evaluation" (Sen 1987). In the first case I try to identify and scrutinise those indicators which constitute contemporary standards. In the second case, the analysis is based on the individual's self-assessment. This will, to more or less extent, involve a comparison of his or her situation with that of others. The identification of people's reference groups is a rather difficult empirical exercise. On the other hand, these groups play a major role in people's expectations or their sense of fairness. Indicators of subjective well-being include this relative aspect of well-being as well. Subjective indicators, however, may be problematic, because people probably adapt to situations. Possible paradoxes include the satisfied poor with diminished expectations, or the luxury tastes of the rich. It is not clear how strong these phenomena are in the context of transition, where changes of circumstances are substantial, so adaptation to specific levels of well-being may occur to a less extent than in countries which experienced long periods of continuous development. Nevertheless, the use of both objective and subjective standards seems to be a appealing approach, as shown by existing empirical literature (Kolosi 1987; Allardt 1993; Andorka 1995) This approach may help with the problem of whether we should incorporate people's expectations as measures of policy outcomes, given that protection of accustomed living standards is taken as an aim of social insurance (Goodin, Headey, Muffels and Dirven 1999).

The classificatory framework chosen here has roots in classical sociology as well. Max Weber defines 'class situation' as 'the typical probability that a given state of a) provision with goods, b) external conditions of life, and c) subjective satisfaction or frustration will be possessed by an individual or a group' (1947, pp. 424). These attributes may be called indicators of well-being in contemporary language, which include a) resources, b) objective measures and c) subjective measures. This is exactly the approach chosen in this work.

The analysis will focus on the following set of capabilities:

- Being able to maintain an autonomous life, to have financial security
- Being able to live in a healthy and pleasant physical environment
- Being able to have employment, to have a fulfilling job or to do a socially valued activity outside the labour market
- Being able to live for others
- Being able to lead a happy life

These capabilities will be approximated by *functionings or well-being indicators of individuals, in other words, realised capabilities*. This inevitably means that I will attach normative values to these measures of functionings, and attach more value to higher levels of possessions. For example, housing of a good quality is regarded to be valuable per se. For certain variables, individual's states have to be compared and ranked. Unemployment is regarded to be undesirable compared to employment. Such judgements are more difficult referring to absence from the labour market. Inactivity may occur as a choice, for example for the purpose of child care, or it may be a necessity, e.g. an escape from unemployment in the form of early retirement. During the analysis I will try to separate these two forms of inactivity, first of all by identifying such 'forced' inactive states²⁷.

In the case of certain possible indicators of well-being, it is not appropriate to rank states of individuals, because 'choice' and 'enforced lack' cannot be distinguished. Marital status, or voting behaviour are such measures, of which the second may need more explanation. Identifying voting in national elections as an indicator of well-being seems to be problematic. In my view it is an essential part of individual's freedom to be able to refrain

from voting, thus I do not want to attach normative value to voting as such. The possibility of voting in a democratic election may have value for an individual, but not the act of voting itself if it is a result of a free personal choice. This argument seems to be particularly relevant in the specific context of Hungary, where in the pre-transition era many people felt that they were expected to vote and now they may appreciate the freedom of being able to abstain from voting if they want to.

These measures of functionings show significant overlaps with the United Nations' notion of level of living (Drewnowski and Scott 1966), the Swedish welfare concept (Erikson and Åberg 1987) and the Hungarian quality of life survey conducted by the Central Statistical Office in 1981/82. Due to shortfalls of the currently used dataset, it is not possible in this work to address issues of security of life and property and that of working conditions. A major constraint of the current research is the simplicity of health indicators in the available survey data, which do not provide comparability over time.

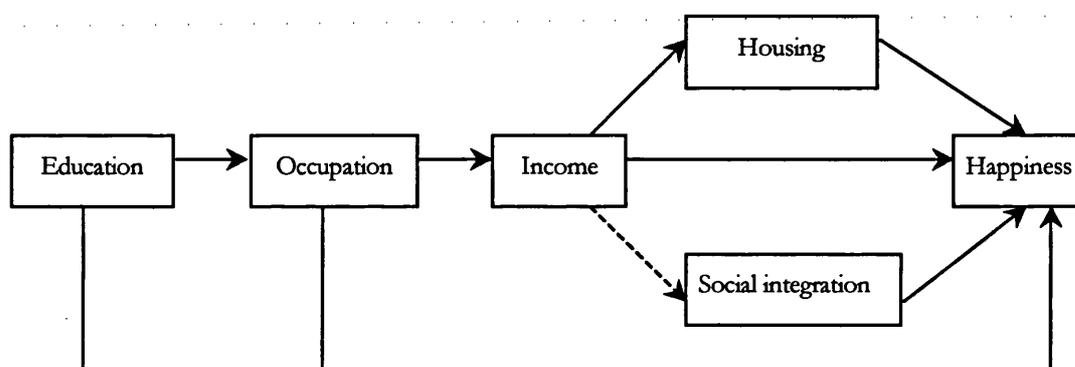
Table 1.2 Capabilities and their operationalisation in the thesis: indicators of well-being

<i>Capabilities</i>	<i>Indicators</i>	<i>Measurement</i>
OBJECTIVE MEASURES		
Being able to maintain an autonomous life, to have financial security	Income	Net total annual income (in most cases: equivalised household income)
Being able to live in a healthy and pleasant physical environment	Housing quality	Housing quality problems Housing ownership
Being able to have employment, to participate in a socially valued activity	Employment status	Employment status
Being able to live for others	Contacts with friends and relatives	Contact with friends or relatives Number of friends with whom problems can be discussed (1998)
SUBJECTIVE MEASURES		
Being able to maintain an autonomous life, to have financial security	self-reported satisfaction	Satisfaction with income Satisfaction with living standards
Being able to live in a healthy and pleasant physical environment	self-reported satisfaction	Satisfaction with housing Satisfaction with neighbourhood
Being able to live for others	self-reported satisfaction	Satisfaction with family life
Being able to lead a happy life	self-reported satisfaction	Satisfaction with life so far Satisfaction with future perspectives

²⁷ Two main particular exit strategies characterised the Hungarian labour market during transition: early

Each of these capabilities or measures of well-being will be examined individually, thus not as a component of an overall measure. The population as a whole is the subject of the investigation, including children. Due to the nature of certain indicators, like employment, at times the analysis has to be narrowed down to the working age population. Wherever possible, household level variables will be attributed to all members of the household individually (e.g. housing conditions, social contacts with relatives). In the case of household income, which needs to be somehow attributed to the members of the household the analysis will apply various measures of equalisation.

Figure 1.2. Assumed relationship of various functionings and income



The explanatory variables will include sex, age, educational level, ethnicity and region or type of settlement. The independent variables all refer to personal characteristics of individuals, which are either permanent (like age, sex and ethnicity) or relatively long-term characteristics (like education and region). These indicators, together with labour market status and household size have been identified as major risk factors of income poverty in Hungary (Tóth 1999). The inclusion of education needs some explanation. Knowledge, participation in education, and the ability to lead a life with adequate educational background are one of the most common indicators of social development and human well-being. Educational attainment is no doubt an essential functioning. At the same time it is not just an end in itself, but a means to achieve other valuable things in life, such as having a satisfactory job, or being able to lead a certain lifestyle. In this analysis I focus on education as a determinant of well-being, rather than an end in itself. This choice, however, is more of a pragmatic nature, due to space and data constraints, rather than an expression

retirement and disability pension scheme. These have been widely used as alternatives to unemployment.

of a value judgement. Figure 1.2 illustrates the assumed relationship of various functionings and income.

Ethnicity in the analysis is defined as those who were considered Gypsy by the non-Gypsy community. 'This definition certainly does not discount those, who self-consciously claim their Gypsy origin, but it also includes those, who have already become strongly assimilated into other communities. Every experience indicates, that the non-gypsy communities are aware of the origins of even of the successfully assimilated gypsies' (Kemeny, Havas and Kertesi 1996, p. 3). This comprehensive survey, conducted between Oct 1993 and Feb 1994 finds that 5% of the population is Gypsy, which equates to approximately half a million. This is similar to the proportion identified in the surveys used in this thesis.

Finally, I would like to briefly mention a few major terminological choices of the thesis. *Well-being* is used as a synonym for specific measures of functionings, so it refers to a particular labour market status (objective well-being) or a specific level of self-reported satisfaction (subjective well-being). For the sake of clarity, it does *not* refer to the whole set of functionings, in other words the overall quality of life of a person. *Self-reported satisfaction with life as a whole so far* is a specific measure of subjective well-being, used in the second part of the thesis. This measure of satisfaction is used interchangeably with '*happiness*', in line with the terminological conventions of the recent economics of happiness (e.g. Frey and Stutzer 2000), which uses similar survey measures (for a detailed discussion see chapter 5). *Gypsy* and *Romany* will be used interchangeably as identifiers of the major ethnic group in Hungary. Finally, the text aims to use 'gender sensitive' language, which means that 'he' and 'she' are used interchangeably, referring to 'he or she'.

1.4 MAIN HYPOTHESIS AND THE STRUCTURE OF THE THESIS

In sum, the main hypothesis of the thesis are the following:

- 1) The overview of various major empirical works measuring people's well-being in section 1.2 suggested that there are certain important aspects of the quality of life, which are not adequately addressed by a sole income measure. Thus it is expected that there will be social inequalities in well-being, which cannot be explained by differences in income.

- 2) Increasing 'meritocracy', in other words *increasing returns to human capital is expected to be a major consequence of transition to capitalism*. Human capital may increasingly influence earnings and also labour market participation. It may also happen that 'abnormal quasi rents' will accrue to specific types of human capital, since labour supply adjusts to changing demand with some delay (Flemming and Micklewright 2000).
- 3) Existing literature reports a *prevailing disadvantage* of the major minority ethnic population, the *Romany*. This includes their particularly low labour market participation, their very low average level of educational attainment and also spatial concentration most hit by economic recession (Kertesi 1994; 1995; Ladányi 2001). There are various accounts of systematic discrimination against Gypsy people, including social services (Guglielmo and Waters 1996). Based on this, it is expected that the analysis will find signs of disadvantage in terms of various measures of well-being of the Gypsy ethnic group. Beyond this, there might be a worsening in the relative position of the Gypsy population, thus they may be potential group of losers of the transition process.
- 4) Existing empirical research on Hungary showed that beyond educational attainment *labour market position* plays a major role in 'success', measured in terms of income (Habich and Spéder 1998). Did labour market participation contribute positively to other elements of well-being over and above income? More specifically, the 'window of opportunity' opened for those endowed with entrepreneurial spirit. Did *entrepreneurs* gain from the increased economic freedom during transition? Have they become happier over time?
- 5) Finally, it is expected that the advancing of transformation into capitalism has affected the *relationship between various aspects of well-being*. Increasing self-reliance of individuals made them increasingly liable for the promotion of their own well-being. Also, people may have been able to 'cushion' themselves during the early shock of transition against the negative impact of the decline of their incomes, by using past saving or changing their consumption patterns. This may have been less

so over time. All this suggests that we can expect that the role of income as a determinant of well-being has strengthened over time.

How will the thesis address these particular issues? It has two main parts, on objective well-being and on subjective well-being. This reflects the complementary nature of these approaches in assessment of the quality of life. The relative weight of subjective well-being is also due to the fact that similar systematic assessment of people's satisfaction in Hungary is very scarce.

In the following section, in chapter 2, I will discuss the context of the analysis, by providing an overview of well-being in Hungary during the 1990s, together with an international comparison. The main features of the welfare system, and its changes will be also described, including the welfare state and enterprises as providers of welfare. Later chapters will present my own data analysis, including its methodology, its results and their interpretation. The structure will follow particular elements of well-being. Income inequality is discussed in chapter 3, with a great emphasis on methodological choices, and a sensitivity analysis of the results. Three further measures of well-being are analysed in chapter 4, including labour market participation, housing and social relations.

The second part of the thesis, the analysis of subjective well-being, starts with the discussion of satisfaction with specific domains of life. Chapter 5 analyses the relationship between objective conditions and their subjective assessment, focusing on three measures of satisfaction: satisfaction with income, satisfaction with housing and neighbourhood and satisfaction with family relations. I will also scrutinize the relationship between personal characteristics and subjective well-being, in other words social inequalities in subjective terms. Then, in chapter 6 I will examine the relationship between measures of satisfaction with particular domains of life and general life satisfaction. In other words, how much individuals' sentiments toward specific aspects of their lives explain their overall 'happiness', and whether this 'internal structure' of 'happiness' differs for specific population groups. In the final phase of the empirical analysis, I will look at social patterns of 'happiness', and its changes over time. This latter question may be also interpreted as an analysis of winners and losers during economic transition in terms of personal happiness. This survey measure of general life satisfaction may be also interpreted as a proxy for 'experienced utility'. Thus, this chapter will present evidence on the relationship between

income and utility, and also between other personal attributes, including labour market status, and utility.

While happiness can be interpreted as an inherent element of a person's well-being, as mentioned before, it is also used as a single measure of individuals' welfare. Due to this dualistic nature of this measure, I can also say the thesis will finally be able to draw together various different aspects of measuring individuals' quality of life, including resources, functionings and utility, each of them representing different objects of value, stemming from a rather different theoretical background. This unintended consequence of the plurality of the operationalisation of Sen's concept of well-being may prove to be insightful in its own right.

OBJECTIVE MEASURES OF WELL-BEING DURING TRANSITION. AN OVERVIEW

2.1 OBJECTIVE MEASURES OF WELL-BEING AND TRANSITION: AN INTRODUCTION

The coming three chapters analyse objective well-being in transition. What is objective well-being and what do we mean by transition? I start the discussion with clarification of these terms.

Objective well-being refers to states of individuals, which are observable, and measurable based on explicit criteria of success. As discussed before, these criteria of success may be based on 'expert judgement' or on a sort of 'social consensus'. The former approach is pursued recently by the European Union, and will be used in this analysis as well. 'Expert judgement' seems to be more suitable for choosing indicators, which 'have a clear and accepted normative interpretation', are 'robust and statistically validated', are 'responsive to effective policy interventions', and their 'measurement should not impose too large a burden' on states. These criteria are suggested by Atkinson et al as desirable properties of social indicators in the EU (Atkinson et al. 2002, pp. 21-23). Such 'expert judgement', however, in order to be socially accepted and transparent, has to take account of contemporary social standards. Due to this, the indicators should be remain 'timely', and be subject to revision if necessary ²⁸. The indicators of objective well-being thus need to measure elements of the quality of life, which are desirable and measurable. Desirability, however, is not the sole criterion of value, as discussed in depth in the previous chapter.

Social indicators as performance indicators seem increasingly to play a political role in the development of the social agenda of the EU. Atkinson et al. in their recommendations on the principles of indicator construction emphasise that an indicator should 'have a clear and accepted normative interpretation' (2002, p. 21). In this analysis I focus on elements of individuals' lives, which are inherently valuable. In most cases, goodness can be simply quantified in terms of 'the more is better'. In others, however, such as certain labour market positions, or family status and fertility, the normatively desirable states are less

²⁸ Certain indicators of poverty already include an automatic updating mechanism, for example when a poverty threshold is defined relative to the mean or median income.

clear-cut and greatly depend on individuals' choices. These aspects of well-being will be discussed later on in the relevant sections of the analysis.

What are the main features of the measures of well-being used here? Drawing on the discussion in the previous chapter, the properties of the indicators used here can be briefly summarised as follows.

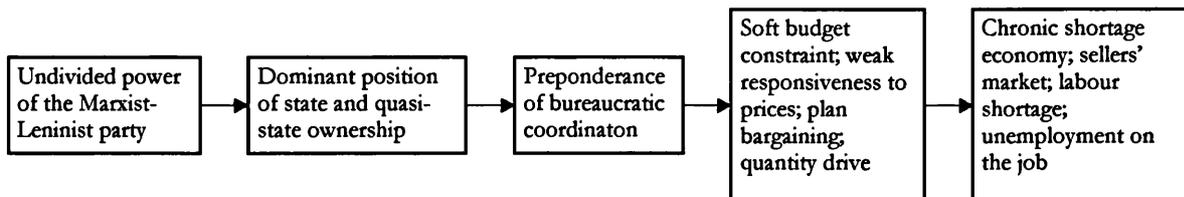
- They measure *inequality within the total population*, rather than social exclusion or poverty. The main concern here is the total range of distribution of the elements of the quality of life.
- The measurement of well-being will include income as well as other indicators. The normative value of 'functionings' other than income seems to be indisputable, as discussed in greater depth before. Income expresses a command over resources, which determines well-being to a great extent. It also reveals a person's consumption which is not covered by other indicators of well-being. Also, income captures a certain aspect of individual freedom in providing people autonomy and a range of choice in their decision-making. Its additional informational value seems to be useful from a pragmatic, methodological point of view.
- The well-being of *individuals* is my main concern, rather than that of households or families. From this point of view, households or families matter only to the extent as they contribute to their members' well-being.
- *A multidimensional set of indicators* will be used, without aggregating them into a single score.

The meaning of the expression 'transition' needs some clarification as well. Theoretical models of the socialist and the capitalist system identify pure and distinct types of economic structures [e.g. the work of Kornai on the socialist system (1992b)]. Existing economic systems, however, appear to be impure cases. A self-evident example is that of the countries which undergo transition from socialism to capitalism. Beyond this, none of the stages of the process appear pure cases either. As Kornai notes, in mainstream economics the term 'mixed system' applies to practically all modern capitalist economies, indicating that the state plays a certain role in monetary and fiscal policy (2000, pp. 34-35).. He also emphasises, that even those countries, which have a relatively high proportion of state ownership (Austria) or high redistribution (Sweden), are capitalist, because they remain to have the principal attributes of a capitalist system (These attributes are presented

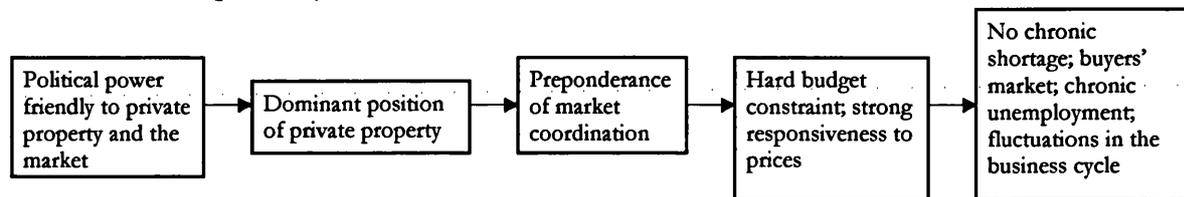
in Figure 2.1.) The economic system where transition economies are heading can be called capitalist only when they show the same basic features.

Figure 2.1 Model of the socialist and capitalist systems

Model of the socialist system



Model of the capitalist system



Source: (Kornai 2000, Figure 1)

Socialism prior to transition did not exist in its pure form either. From the mid 1980s a 'reformed state' or a 'socialist mixed economy' existed in Hungary. The main feature of this was that it enabled the evolution of a significant private sector. Certain forms of private entrepreneurship were legalised, and state control, 'bureaucratic coordination', declined. Kornai argues that the journey from socialism to capitalism is primarily a spontaneous development after the legal barriers are abolished (2000, pp. 29-33)²⁹. This process, however, speeds up significantly if the state is an 'active assistant'. In his view, the changes started in an economic sphere, but could be completed only after a fundamental change in the political regime. When has this process of transition started?

In political transformation, the major landmark is 1990, the year of the first democratic multiparty elections. In the economic sphere there was more gradualism. A possible marker of a new and distinct phase in economic development was the introduction of a series of new laws between 1988 and 1991, which were clearly laying the foundations of a market

²⁹ He contrasts this with the transition to socialism a few decades ago, which was not the result of a spontaneous development. The socialist system, argues Kornai, was imposed on society by the communist party 'with brutal force' (Kornai 2000, p. 31).

economy. As Annex 2 shows, there was major liberalisation in foreign trade, price control was abolished, and a bankruptcy law was introduced. The new income tax system introduced the value-added tax and the personal income tax, and marked the launch of a new fiscal policy.

The term transition refers to the phase of development, when the principal attributes of the economic and political system changed, including the metamorphosis of the state as a regulator and redistributor. Beyond these institutional changes, however, there was a major, although less tangible change, a transformation in people's norms as well. In this sense 'transition' may be still happening. It takes a long time for the democratic culture or a flourishing civil society to be firmly rooted. In a narrow economic sense, however, now it seems to be appropriate to speak of transition in Hungary as a period of the past. As shown later on, total output in Hungary had returned to its 1989 level by the late 1990s. Also, at large institutional changes have been complete, and as a result the private sector is dominant. Market coordination prevails in the economy, and the economy is characterised by chronic unemployment.

The time period studied here thus seems to capture most of the impact of the transition process itself. The earlier survey year, measuring the period between April 1991 and March 1992, is clearly not a pre-transition year, rather a point in time in early transition. Also, as I will discuss later on, income inequality rose significantly already before 1990. Supposedly there were growing disparities in other indicators of well-being as well. The period examined in the data analysis in later chapters, from 1991 to 1998, however, seems to capture the major changes in the welfare system. As shown Annex 2, the transformation of the welfare state only followed the economic restructuring with a delay of a few years. It is expected that the consequences of this in terms of people's well-being appeared with some delay as well. Similarly, rising inequality and falling average real incomes are expected to affect people's quality of life with some time lag. Thus, the years studied here seem to be adequate for the analysis of the social consequences of economic transition and that of the transformation of the welfare system.

2.2 WELL-BEING AND ITS CHANGE: HOW DOES HUNGARY COMPARE?

Hungary, with its 10 million inhabitants, is about the same size as Portugal, Belgium, Greece or the Czech Republic. Although geographically it has always been part of Europe, throughout its intellectual history there has been an intense debate whether the country should look at the West as a reference point or emphasise its distinct nature. Hungary's specific feature first of all is its unique language, 'magyar', which is a member of the Finno-Ugrian language family, and practically the only representative of the Ugrian languages³⁰. This linguistic divide identifies the country as distinct from all nations with Indo-European origin, including all its neighbours, with Slavic (Slovak, Ukrainian, the Rusyn dialects, Serbo-Croatian, Slovene), Romance (Romanian) and Germanic languages (German - in Austria). How different Hungary is from the rest of the world from an economic and social point of view? Is there a distinct 'Ugrian' path of development, especially after the socialist era?

Macro indicators of development

The level of human development in Hungary is similar to other Central European countries according to the United Nations (UNDP 1999a). The country's HDI rank was 47 among 174 nations in 1997 (see Table 2.1). There is an apparent division among Western-, Central- and Eastern Europe, both in the level of the HDI and that of the GDP per capita. In the league table of nations, all European Union countries stand in the front, followed by countries of Central Europe, then by Eastern Europe, including countries of the former Soviet Union. The HDI ranks of the Central- and Eastern European countries consistently exceed their GDP ranks, which suggests that the non-income components of their HDIs are favourable compared to many other nations. The main explanation is their outstanding adult literacy rate, which equals the level of the most developed countries. In other dimensions of the index, including life expectancy and school enrolment, Eastern Europe actually does not perform particularly well, it significantly lags behind the leaders of the table.

³⁰ Other Ugrian languages, such as Mansi ('Vogul') and Khanty ('Ostyak') are either endangered or extinct. Some estimations show that there are a few thousand Khanty speakers in Siberia, but these numbers are admittedly not reliable (Salminen 1998)

Table 2.1 Human Development Index and its components in selected countries

HDI rank	Country	Life expectancy at birth (years) 1997	Adult literacy rate (%) 1997	Enrolment ratio ^a (%) 1997	Real GDP per capita (PPP \$) 1997	Real GDP per capita rank minus HDI rank
1	Canada	79.0	99.0	99	22,480	12
2	Norway	78.1	99.0	95	24,450	5
3	United States	76.7	99.0	94	29,010	0
10	United Kingdom	77.2	99.0	100	20,730	9
11	France	78.1	99.0	92	22,030	4
14	Germany	77.2	99.0	88	21,260	2
16	Austria	77.0	99.0	86	22,070	-2
19	Italy	78.2	98.3	82	20,290	2
33	Slovenia	74.4	99.0	76	11,800	5
36	Czech Republic	73.9	99.0	74	10,510	3
42	Slovakia	73.0	99.0	75	7,910	9
44	Poland	72.5	99.0	77	6,520	18
47	Hungary	70.9	99.0	74	7,200	8
54	Estonia	68.7	99.0	81	5,240	15
55	Croatia	72.6	97.7	67	4,895	18
62	Lithuania	69.9	99.0	75	4,220	22
63	Bulgaria	71.1	98.2	70	4,010	23
68	Romania	69.9	97.8	68	4,310	13
71	Russian Federation	66.6	99.0	77	4,370	8
74	Latvia	68.4	99.0	71	3,940	15
91	Ukraine	68.8	99.0	77	2,190	27

Source: (UNDP 1999a)

^a Comined primary, secondary and tertiary gross enrolment ratio (the number of children enrolled in each level of schooling divided by the number of children in the age group corresponding to that level)³¹

Gross Domestic Product per capita, a major component of the HDI, shows great disparities across European Countries. The GDP of Central European countries varied between 6,000 and 12,000 US dollars in PPP³² in 1997, with Hungary situated towards the lower end of this range with \$7,200 (UNDP 1999a). This region has somewhat more income than Russia, Romania, Bulgaria and most of the Commonwealth of Independent States, which generated \$2,000-5,000 per capita³³. A major gap in terms of national income, however, appears to be between Western-Europe and Central-Eastern Europe as a whole. GDP per capita in most countries of the European Union is about three times as much as in Hungary.

³¹ The UNDP admits that this is a rather crude measure, because such factors such as grade repetition, or differences between the duration of education programmes lead to distortions in the data. The alternative, however, the net enrolment ratio, is apparently available only for too few countries.

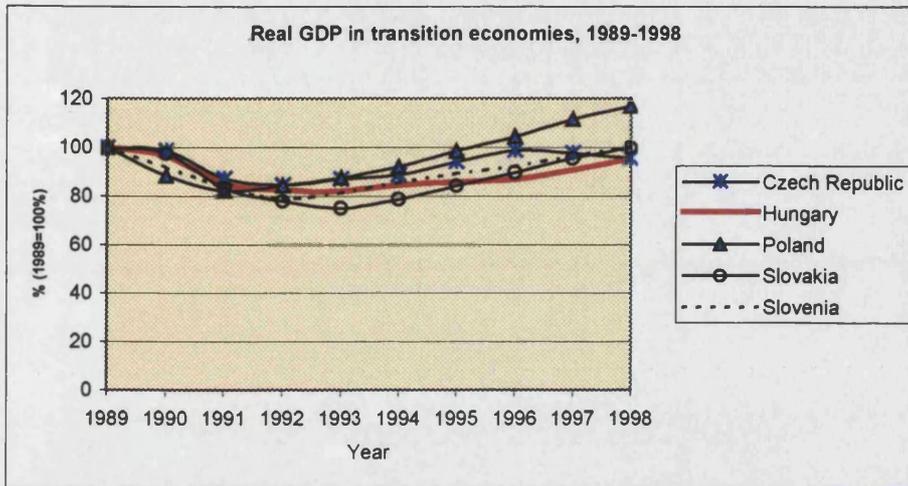
³² Purchasing Power Parity, which provides a much better basis for comparison than simple US dollar equivalents, since specific exchange rate systems may distort relative incomes.

³³ Exeptions are Azerbaijan, Moldova, Tajikistan, which have only 1,000-1,500\$ GDP per capita.

Economic transition brought a substantial fall in aggregate income. The extent of this fall and the trajectory of later economic development seem to distinguish Central Europe from the rest of Eastern Europe. In Central Europe, including Poland, Hungary, the Czech Republic, Slovakia and Slovenia, the fall remained no greater than 25% at its deepest point, and we may observe an overall trend of recovery (see Figure 2.2 a). Here, transition appears to be a shock, a temporary stage of development. Hungary, for example, almost regained the level of its 1989 GDP by 1998. The rest of Eastern Europe constitutes a rather heterogeneous group of countries, consisting of the nations of the ex-Soviet Union, the Baltic States, the East European laggard Bulgaria and Romania, and the war-struck ex-Yugoslavian countries. In certain countries (Ukraine or Tajikistan) the decline of the output has reached even 60% of the GDP compared to its 1989 level (Figure 2.2 b). Russian GDP nearly halved in ten years time, and there are no signs of major recovery yet. The Baltic states, although suffering a significant loss of output, seem to show a clear trend of growth since 1996.

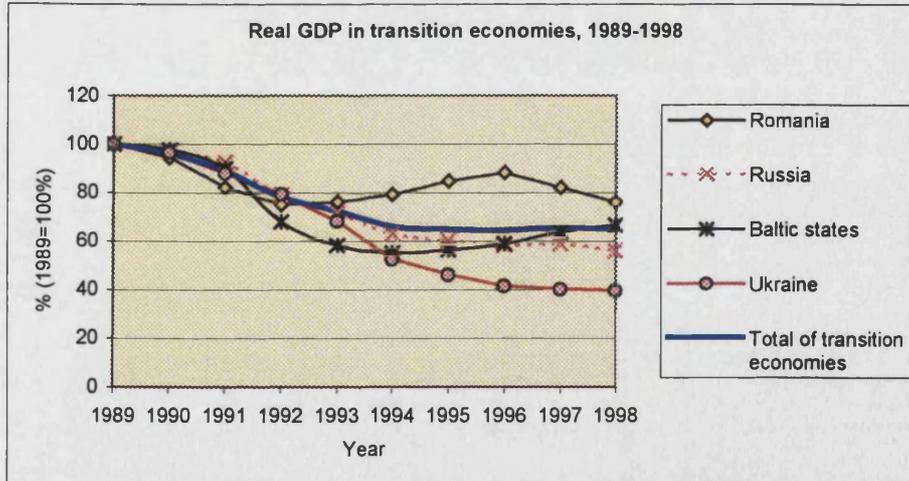
Figure 2.2 Real GDP in transition economies, 1989-1998

(a) Recovering



Source: (Economic Commission for Europe 2000)

(b) Continued decline



Source: (Economic Commission for Europe 2000)

Note: Total of all transition countries: includes Central and Eastern Europe, the Baltic states and the CIS

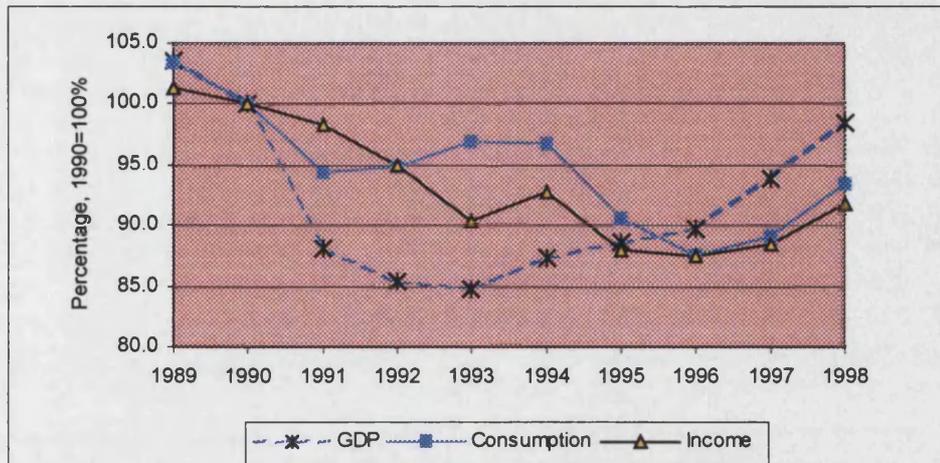
Neither the GDP, nor the HDI can be a sole standard of international comparison. GDP, as widely claimed, is inadequate for measuring human development or well-being. The HDI has a few drawbacks as well. Without repeating the arguments of the previous chapter, I would like to highlight a few main problems. Firstly, due to its nature HDI is a

composite index, tackling various different components of well-being together. For a deeper analysis, it is necessary to look at relative changes of these parts. Secondly, HDI does not address the issue of distribution within countries, and uses purely aggregate measures. Thirdly, these simple indicators of development may not offer the best basis of comparison between various, relatively developed, European nations. For similar reasons the index in itself may not be adequate for the assessment of the transition process either. Therefore the following discussion will include the distribution of incomes, the labour market situation, and also demographic indicators, and health.

Household income

The incomes of households have changed in two major ways during economic transition: there was a major decline in average incomes and also inequality between households rose. Lower income levels are partly due to the 'transformational recession' (Kornai 1994) and partly to the shifting role of markets and the state in the economy. As mentioned earlier, the output level fell significantly during the transition process in Hungary. Between 1989 and 1993 GDP decreased by 20%. As a consequence, incomes and consumption declined as well, although as we can see in Figure 2.3 they followed a different, smoother pattern. The 1994 parliamentary elections brought a halt to the declining trend, and resulted in a temporary rise in living standards due to government policies. This rise was reversed by the 1995 economic stabilisation programme, which brought a major drop in both income and consumption levels. Probably partly as a result of this programme, from 1996 GDP, income and consumption show a clear trend of recovery and growth.

Figure 2.3 Changes of household consumption, income and GDP in Hungary, 1989-1998



Source: Statistical Yearbooks of Hungary (KSH 1993; 1994; 1995; 1997; 1999b; 2000)

Notes: Income: real income per capita ('total income', not defined by the Statistical Office);

Consumption: households' final consumption expenditure

Income disparities increased in the 90s. There is some ambiguity in the literature on the actual degree of inequality, but there is consensus on the rising trend (see chapter 3 for more details). The extent of this rise, however, was moderate. Kolosi reports an increase of the ratio of the average income of the top and bottom decile groups from 7.06 to 7.23 between 1992 and 1998 (2000, p. 109)³⁴. The main explanation for this increase is that while the top decile group could successfully benefit, the bottom two decile groups gradually accumulated a disadvantage compared to all other income groups. The Gini coefficient of income, with its value of 30.8 is higher than in the Czech Republic (25.4), but below the value for Poland (32.9)³⁵ (World Bank 2000, Table 5). Inequality in Hungary has not reached such extent as it did in Russia (with a Gini of consumption of 48.7). In comparison to Western Europe Hungarian inequality already exceeds several more egalitarian countries including Austria, Belgium, and Sweden, but it has not reached the inequality measured in the most unequal group of the United Kingdom, Portugal and Ireland³⁶ (ibid.)³⁷. The income structure of Hungarian households has changed in two main

³⁴ Net household income per capita is used as a measure of income. Deciles are based on household distribution.

³⁵ The data refer to inequality of income in 1996, equally for Hungary, the Czech Republic and for Poland. In contrast, the Russian indicator is based on per capita consumption in 1998. There is no information on whether the income measure used is gross or net income.

³⁶ All the data refer to inequality of income, but are based on different years between 1987 and 1995.

ways during the transition; the share of labour market incomes has decreased, and that of social security incomes has grown. This is due to the changes in the labour market, first of all to decreasing labour market participation. At the same time inequality of market incomes has greatly increased, as earnings became more concentrated³⁸. This was not balanced out by social security benefits, because during the whole period their 'targeting' has deteriorated, increasingly benefiting the better-off³⁹.

Relative poverty has increased in Hungary, from 12.8% in 1992 to 17.8% in 1997, measured by individuals below 50% of the average income (Förster, Szivós and Tóth 1998, p. 288). This increase was smaller if we apply a lower poverty line, namely 50% of the median income; from 10.2% to 12.4%. The difference between these two trends reveals a tendency of widening dispersion of incomes. During the years of transition the curve showing the frequency distribution of income shifted to the left as the average level of real income decreased and the concentration of income in the hands of the top decile group grew, thus the difference between the median and the average income has increased. As shown, the increase in poverty was smaller when a lower poverty threshold was used. This reveals another peculiar phenomenon among the poor. It seems that the bottom of the income distribution was relatively less affected. As Förster et al. note, there was a decline in inequality among the poor over time, despite the rising inequality in the total population. The reasons for this are not analysed yet.

Poverty particularly affected children. Relative poverty has doubled for children below 14 years between 1992 and 1997, and reached a particularly high value for *children up to 2 years*, of whom 35% lived in poverty in 1997, measured as 50% of average equivalent income (Spéder 1998, Table 1.3.2.). Child poverty in Hungary in 1994 was not particularly outstanding in international comparison (10.3%), using 50% of the national median as a poverty criterion, and was about same as the degree of child poverty in Germany, half of that in the worst performing countries of the EU, the UK and Italy, where child poverty

³⁷ The data refer to various years: 1996 for Hungary, the Czech Republic and Poland, 1991 for the UK, 1987 for Ireland, 1994/95 for Portugal, 1987 for Austria, 1992 for Belgium and Sweden.

³⁸ The Gini coefficient of market incomes has increased from 46.6% in 1992 to 51.6% in 1997 (UNDP 1998).

³⁹ The inequality of social security benefits measured by the Gini coefficient has increased from 31.8% to 36.7% in the same period (UNDP 1998). In Hungary, thus, social security benefits are in general more 'pro-rich', due to the fact that the major benefit type, pensions, is earnings-related to a great extent, thus provides more to those who are better off.

reaches 20% (UNICEF 2000, Figure 1)⁴⁰. This measure, however looks at the whole group of children below the age of 18, and uses data for Hungary from an early point of transition. In the years following 1994, the situation of children, particularly that of those below 6 years has radically deteriorated. Hungary thus would perform much worse in an updated league table of child poverty.

In contrast, the relative income situation of the elderly seems to have improved. Poverty among people between 60 and 69 years has fallen from 11% to 3% between 1992 and 1997 and it has declined from 11% to 5% among those above 70 years (Spéder 1998, Table 1.3.2). In these age groups, poverty remains below 5%. Poverty has a strong regional aspect as well. The proportion of the population living in poverty was twice as much in villages and small towns as in Budapest (Medgyesi, Szivós and Tóth 1999). Another major social determinant of poverty is education level. Those who have low level of education are the most struck by poverty, primarily due to their weakening labour market position.

Labour market

Labour market participation is an essential element of the analysis of well-being for two major reasons. Firstly, labour market status is a major determinant of income differences. Thus, labour market trends are expected to greatly explain growing income disparities. Secondly, characteristics of the labour market reveal the existence or lack of important human capabilities: first of all who can participate in the labour market and who cannot. Another capability is whether an individual can opt for not having a paid job, for example in order to be able to do home-care. These activities together may be called the participation in a 'production activity', which means to be engaged in an 'economically or socially valued activity' and as Burchardt et al note, these are essential in order to be able to participate in the 'normal activities' of citizens in the society (Burchardt, LeGrand and Piachaud 1999, pp 230-1).

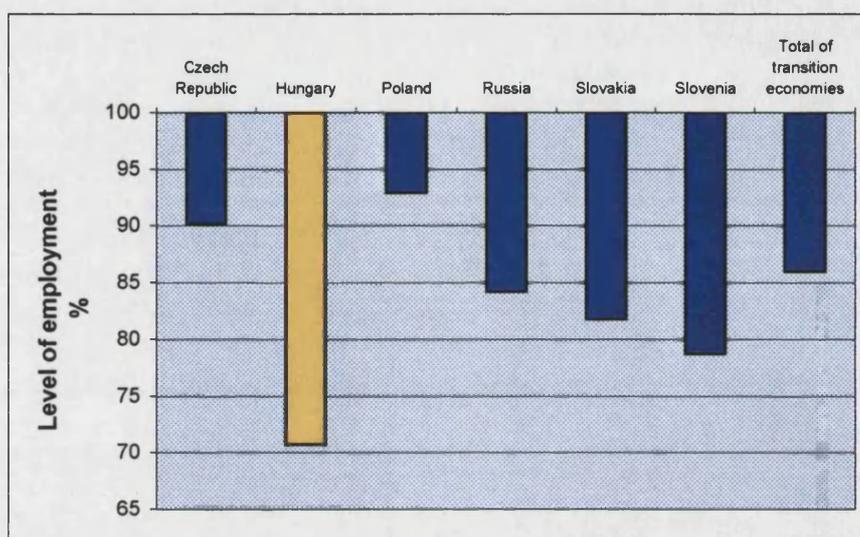
⁴⁰ The percentage of children living in households with income below 50 per cent of the national *median* in 1995 in Italy and the UK. The UNICEF report cited above contains data for Hungary from 1994.

Declining opportunities for the majority

The Hungarian labour market situation is peculiar: a low level of participation is coupled with relatively low level of unemployment. This idiosyncrasy is a consequence of a country-specific feature of economic transition. In Hungary the decline in the level of employment approached 30%, which is twice as much as the average of the whole region (Figure 2.4). Decline in employment, and the appearance of unemployment seems to be an inherent part of the transition process and is widely discussed in the academic literature (Boeri 1994; Kornai 1994; Standing 1997). One may argue that it did not actually appear from nowhere, rather it came out of the 'factory walls': the so-called 'unemployment on the job'⁴¹ was replaced by 'unemployment without job'. The outstanding decline in Hungarian employment is predominantly due to the comparatively radical economy policy, containing a rigorous bankruptcy law at an early point of the transition, and also to the permissive social security benefit system, which allowed 'exit' from the labour market. Pension schemes, first of all early retirement and disability pensions, have offered a good option for leaving the labour market for many. These have resulted in a particular labour market situation, characterised by low levels of participation, particularly among the elderly.

⁴¹ As shown in Figure 2.1 the labour market, like the whole economy during the socialist era, was not based on market principles. Demand for labour was not determined by efficiency on a micro level, but with a fuzzy constellation of political and economic considerations in a planned economy. A typical characteristic of this socialist economic system was a 'soft budget constraint' combined with shortage. This resulted in a phenomenon where many factories employed more workers than they actually needed, accumulating internal surplus for possible future needs. It resulted in 'hidden unemployment', or in Kornai's terminology 'unemployment on the job' (Kornai 1992b, p. 223).

Figure 2.4 Change in the level of employment in transition economies, 1989-1998 (1989=100%)

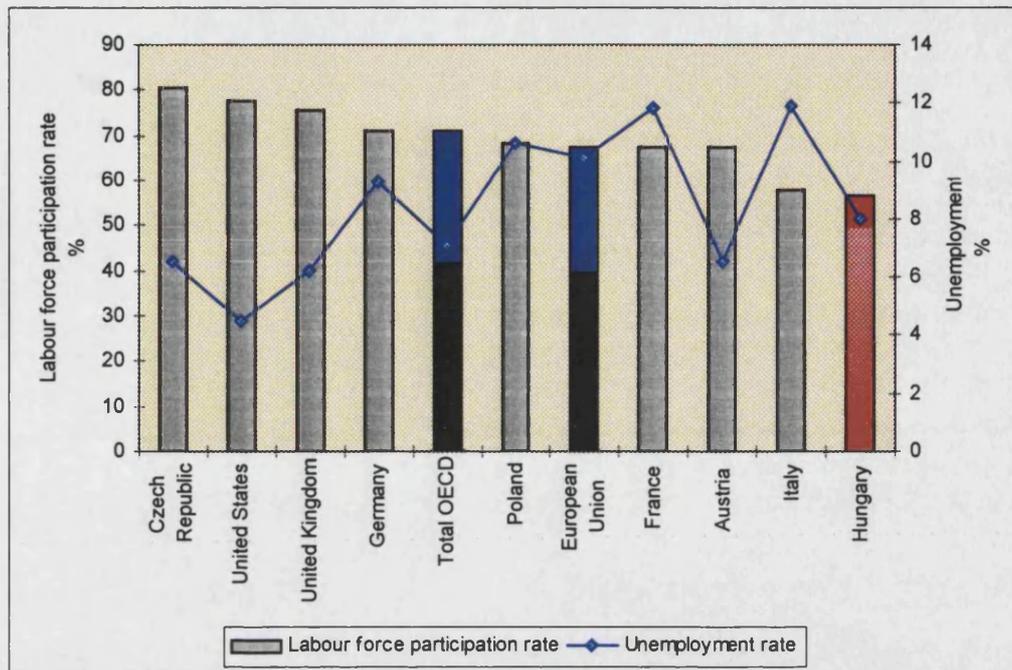


Source: (Economic Commission for Europe 2000)

The labour force participation rate in Hungary, 56%, is 11% points below the European Union average, and much less than the similar rate of the other two new OECD states, Poland and the Czech Republic (see Figure 2.5). The employment rate among the 55-64 years age group is particularly low by international comparison, 19%, which is about half the EU average (Table A1.1, OECD 2001b). As we can see on the graph, all this is not due to high unemployment, since the Hungarian rate is below the EU average and much beneath the unemployment level of a country with similarly low labour market participation, Italy. The key to the peculiar Hungarian labour market situation seems to lie in the small labour market itself, thus high inactivity⁴².

⁴² The age structure of the population is not characteristically different from that of most other OECD countries, thus the population in working age is not different either. This difference in overall inactivity, therefore, cannot be explained by demographic factors.

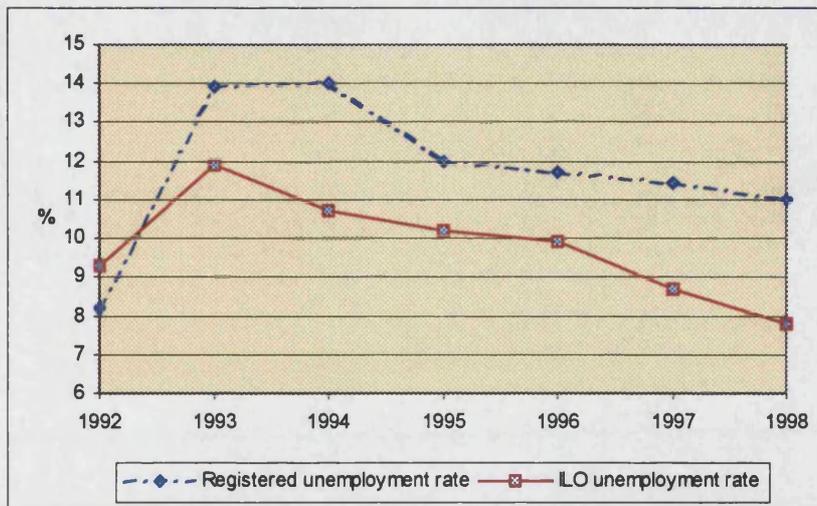
Figure 2.5 Labour force participation and unemployment rate in selected OECD countries, 1998



Source: (OECD 1999)

Unemployment sharply increased in the early 1990s, then gradually decreased. As Figure 2.6 shows the registered unemployment rate is in most years significantly higher than the ILO rate, calculated from the Labour Force Surveys (LFS). This 2-3% difference is most likely attributable to the rather strict criteria of the ILO definition, as the Human Development Report for Hungary notes (UNDP 1998, p. 46). The first condition of joblessness, that of not working at all, may be problematic, since many unemployed take on smaller occasional jobs, which provide far from enough for a living. A further reason for taking on such jobs is the rather low benefit level and inadequacies in coverage. The second criteria, that of actively searching for jobs, may not be met by many of those who are registered as unemployed. These are typically those who have given up hopes for finding a job, and are called discouraged. The number of this discouraged group is very high in Hungary, according to the LFS. The third criteria, that of being available for work within two weeks is probably a major difficulty for a substantial proportion of the unemployed. The most likely problem is the major regional mismatch between labour demand and supply, and the relatively low mobility of the labour force.

Figure 2.6 Registered unemployment and unemployment based on the ILO definition in Hungary



Source: (KSH 1993; 1999b); ILO rate is based on the Labour Force survey

Miclewright and Nagy also challenge the adequacy of the ILO definition for Hungary (1998). Using LFS data on Hungary over 1993-1997, the authors show that search behaviour is *not* related to actual job finding for men. Interestingly, among women the speed of return to work was the same for the 'discouraged' and for those wanting work. According to the authors, this implies that 'the emphasis often placed in discussion of labour market status on the former group is misplaced' (p. 13). They also find counterintuitive evidence for the change of search behaviour over time. The probability of giving up search seems to *fall* with the length of time out of work.

The *employment* situation in Hungary has also some peculiar characteristics by international comparison. First, there is a very low share of part-time jobs. Part-time employment is only 2.1 % as a proportion of employment for men, and more strikingly, only 5.1% for women. In contrast, this latter figure is 30.3% in the EU on average. This is particularly striking, with respect to the low participation rate in Hungary. This may suggest a lack of flexibility in the labour market. Secondly, there is a high proportion of low-paid jobs, reaching 22%, which is above the level of all European OECD countries (OECD 2001c, Table B3)⁴³. The incidence of low pay in Hungary has dramatically risen since the late 1980s. The third

⁴³ Low-paid employment is defined as the proportion of employees working full-time who earn less than two-thirds of median earnings for all full-time employees. The data refer to various years, between 1994 and 1999. Hungarian data are from 1998 (OECD 2001c, Table B3).

interesting feature is that the gender wage gap is low by international comparison⁴⁴. This is most likely a phenomenon ‘inherited’ from the socialist era.

Finally, a main feature of joblessness needs to be highlighted: that of the high prevalence of long-term unemployment. The long term unemployed, people with unemployment spells of 12 months or more, make up 50% of the unemployed in total (Table A2.1, OECD 2001b). Why is this indicator important? In recent discussions on social exclusion long-term unemployment has received particular attention as a possible measure (Atkinson et al. 2002). Long-term unemployment is distinct for various reasons. As empirical studies show the chance for labour market entry decreases by the length of the unemployment spell (e.g. Bernardi, Layte, Schizzerotto and Jacobs 2000). Unemployment, especially longer spells of unemployment, were also shown to have a ‘scarring effect’ in the US and in Britain through lower future earnings in employment and the increased future incidence of unemployment (Arulampalam, Gregg and Gregory 2001). Also, there is a greater risk of poverty due to the fall in income and also because during the extended period of joblessness the individuals’ ability to pool resources over time, for example to use savings, becomes limited.

In sum, there was a closing window of opportunity for a large number of people in Hungary. Primarily for those who could not participate in the labour market any more, and lost their jobs or became discouraged from job search being registered as ‘inactive’. Half of the unemployed are long-term unemployed, indicating the difficulties with re-entry into the labour market. The relatively high prevalence of low paid jobs and the low proportion of part time employment may imply that the opportunities offered for those who are actually in the labour market may not be desirable for many either.

Opening window of opportunity: entrepreneurship

Economic transition brought insecurity, but also increasing freedom. Transforming labour markets in Central Europe provided increasing returns to skills and more opportunities for entrepreneurship (Brainerd 1998). Entrepreneurship brings higher job satisfaction, and a

⁴⁴ Gender wage gap is measured as the difference between male and female median full-time earnings expressed as a percentage of male median full-time earning (OECD 2001b, Chart B4.1).

large number of people would prefer to be self-employed, both in Eastern and Western Europe (Blanchflower, Oswald and Stutzer 2001). Survey data show that half of Hungarians would prefer to be self-employed. This is a much higher ratio than in the Czech Republic or in Russia. The entrepreneurial spirit among Hungarians, however, seems to be still below that of the Poles, who have both stronger preferences for entrepreneurship, and also choose to become an entrepreneur in greater numbers.

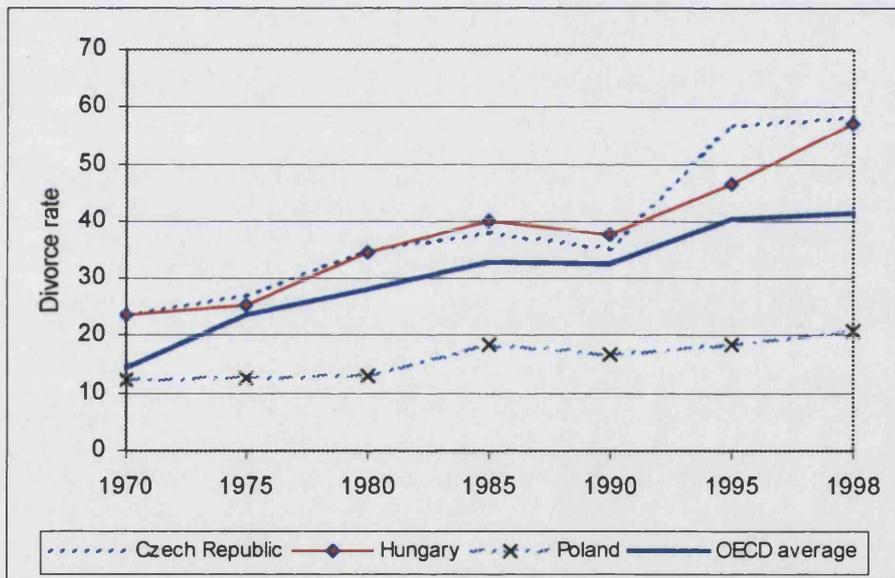
Entrepreneurship existed during socialism as well. Similar to other countries of Eastern Europe, the rural population in Hungary 'lived in two worlds', combining 'work for wages and salaries for the government with part-time family agricultural production' (Szelenyi and Manchin 1988, p.5). Beyond this, the Hungarian state was particularly liberal and enabled the evolution of a significant private sector from the mid 1980s, including small family businesses, and self-employed, freelance individuals (Kornai 1988). The transition from socialism to capitalism brought profound change in property relations and state regulation. As a result, not only did the private sector expand, but also individual entrepreneurship as well. Entry to self-employment and successful survival was strongly linked to pre-transition entrepreneurial experience, and also to human capital (Róbert 2001, p. 161). In contrast those who benefited from greater opportunities, many others, who lost their jobs e.g. as a result of shrinking employment in the state sector, were 'pushed' into self-employment. Many of these, however, soon exited. In sum, the process was highly selective, with gradually increasing stratification between the losers and the winners among entrepreneurs.

Existing data confirm that that self-employment existed in socialism, but the real expansion in terms of numbers only followed the large-scale liberalisation during economic transition. The ratio of self-employed in Hungary was 4.6% in 1985, which rose moderately by 1998, to 5.4%, then nearly doubled, reaching 11.2% by 1993 (Róbert 2001, p 163). This expansion was predominantly concentrated in the non-agricultural sectors. Other Eastern-European countries experienced a similar boom as well, including Poland, the Czech Republic, Slovakia and Bulgaria (ibid.). We do not know to what extent this is attributable to 'push' and to 'pull' factors. Nevertheless, entrepreneurship in itself provided opportunity for people, and is a possible measure of increasing freedom, even if many chose it as a result of growing constraints in other spheres of the labour market. Overall, it seems that a large and increasing proportion of people chose self-employment as a way of labour market participation.

Demography and family structure

Divorce rates rose substantially in Hungary during the 1990s, as Figure 2.7 shows. There was a similar increase in the Czech Republic, and to a lesser extent, in the OECD countries on average. The level of these rates in Hungary has been substantially above the average of the countries of both the European Union and the OECD for decades. As a result of the recent increase, in 1998 divorce rates in Hungary were one of the highest of all OECD countries, exceeded only by the Czech Republic, Belgium and Sweden (OECD 2001c, Table G6).

Figure 2.7 Trends in divorce rate in selected Central European countries, 1970-1998



Source: (OECD 2001c, Table G6)

Note. *divorce rate*: number of divorces in a given year/ number of marriages in the same year (both are 'flow')

A major explanation for the increase of divorces in Western countries is that there is high and growing labour market participation, which leads to financial independence of women. Another reason may be that divorce is becoming socially more acceptable. Do these arguments account for the changes in Hungary? The latter, cultural explanation seems plausible for the difference between Poland on one hand and Hungary and the Czech Republic on the other. Catholicism has remained a major social force in Poland during

socialism and after its collapse, while only a minority participates in religious activities in the other two countries⁴⁵. This however, does not explain the rising *trend* in divorce rates within Hungary, to the contrary: divorce seems to become *less* socially acceptable to the majority in Hungary over time⁴⁶. The former explanation does not seem to lead very far either. Labour market participation was high in socialist countries, including Hungary. This and the resulting financial independence cannot be a reason for higher divorce rates during transition, a period of declining labour market participation and probably declining financial independence. What is a more plausible explanation then?

A closer look at the components of the indicator reveals that the increase of the divorce ratio is, interestingly, driven primarily by the decrease in the denominator, the number of marriages. Between 1990 and 1998 the number of marriages in a year fell by 30%. The number of divorces seems to remain at the same level with some fluctuation (KSH 1998, Tables 3.21, 3.25). The fall in the number of marriages (compared to the total population) is not a phenomenon of the 1990s, but seems to be a continuous trend since 1970. The extent of the fall in the last decade, however, seems to supersede any previous one, which seems to imply an accelerated process. With respect to divorces, there seems to be a structural change: it seems that the break-up of long-term marriages (over twenty years) makes up an increasing proportion (KSH 1998, Table 3.28). In contrast, the termination of short-term marriages comprises less of the total, which probably implies that young people tend to choose co-habitation instead of marriage. Co-habitation appears to be a more and more preferred option by many, which is well reflected in the number of extramarital births. While in 1990 13% of live births were extramarital, by 1997 this ratio has nearly doubled: one in every four children was born out of wedlock (KSH 1998).

The probably most characteristic indicator of the demographic situation in Hungary is that of low birth rates. Decreasing birth rates reflect a long term process, starting already in the

⁴⁵ In 1991 85% of the Polish said they attended a religious service at least once a month, while the equivalent ratio was 21% for the Czech and 23% for Hungarians. For comparison, in 12 'Western' European countries, including Ireland, Italy and Scandinavia, the average ratio was 34%. (Source: World Values Survey, 1990-91, own calculations.)

⁴⁶ One way of testing social acceptance of divorce is looking at the extreme, those who completely reject it. In 1981, 19% of Hungarian respondents said that divorce was 'never justified'. In contrast, this ratio was 22% for 12 Western-European countries. In 1991, it rose to 22% in Hungary, while decreased to 15% in the same group of Western countries. In contrast, 31% of the Polish said that divorce is never justified. (Own calculations, based on the World Values Survey, 1981, 1990-91.)

1950s. The total fertility rate⁴⁷ has decreased from 2.5 in 1949 to 1.9 by 1980, and has fallen to 1.4 by 1997 (KSH 1998, Table 1.1). A woman on average thus gives birth to one child less in Hungary than forty years ago. This trend is prevalent in the whole of Central and Eastern Europe, including even the strongly Catholic Poland. Currently, total fertility rates range between 1.2 and 1.5 in most countries of the region (World Bank 2000). This is below the European Union average, and reaches the level of the countries with the lowest fertility, Italy, Spain, Greece and Austria. The extent of the decline in birth rates is thus rather sharp in Central and Eastern Europe in comparison with developed countries, and is exceeded only by the extreme cases of Ireland, Spain, Greece and Italy, countries with traditionally high fertility rates in the 1970s. In most of the 'developed world', however, either the extent of such falls were milder (as in the UK, in Austria, and Sweden), or there was no such trend at all (in the United States birth rates have even increased during this period) (UN 1998; UNDP 1999b; World Bank 2000).

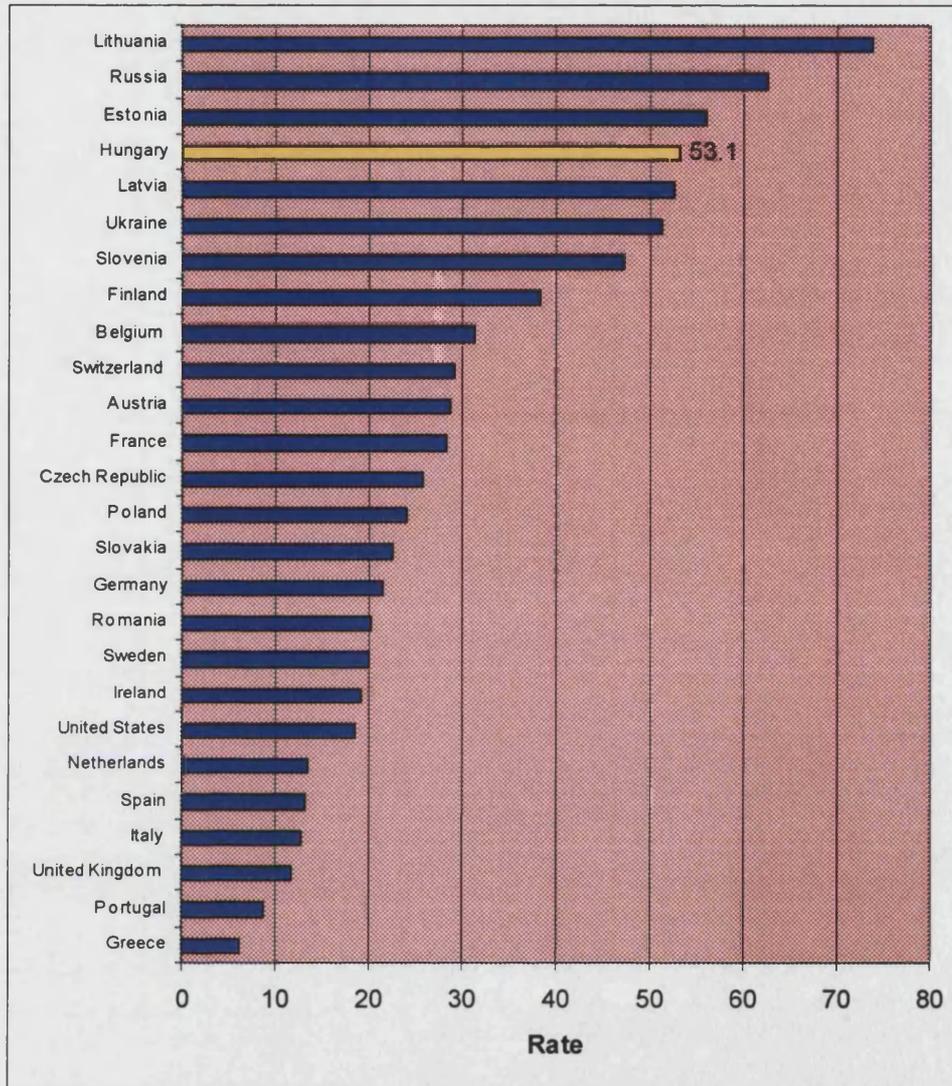
Health, mental health

One major measure of social cohesion, or the lack of it, is the number of suicides in a society. Hungary has had a high position in the international league table for many years. For some, it indicated that the society was deeply unsatisfied and suffered from the lack of social norms (Andorka 1994a). Is the recent level of Hungarian suicides still high? Has it changed during transition? How does this measure relate to other indicators of health?

The suicide rate in Hungary in 1999 had indeed greatly exceeded that of all developed Western nations (Figure 2.7). Hungarians committed suicide more than twice as frequently as people on average in the European Union, and nearly five times more than the British. This figure, however, is less outstanding compared to Eastern European countries, many of which have similarly high rates. Notably, though, Hungarian figures are more similar to those of Russia and the Baltic states, and rather higher than those of most Central European countries. There is no simple causal relationship between the level of national income and suicide rates, neither within Western nor within Eastern Europe.

⁴⁷ The ratio expresses how many children would be delivered by a woman during her lifetime, generalising from the number of child births in the current year.

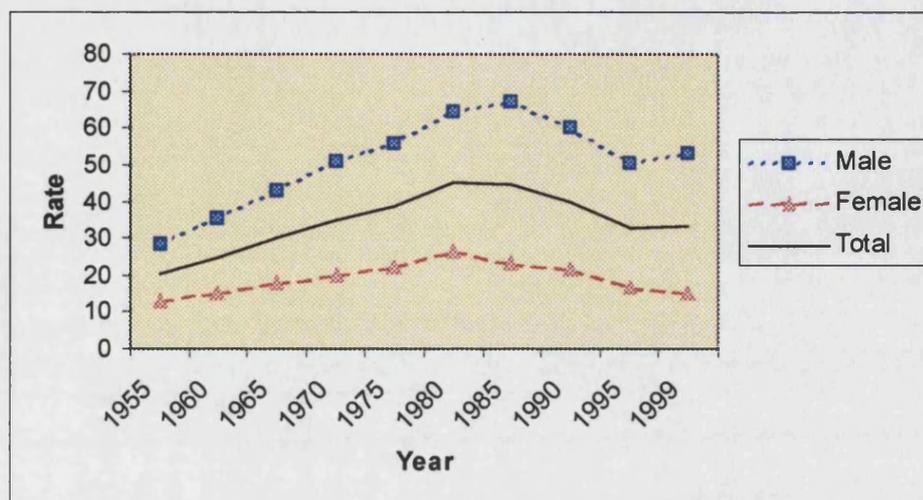
Figure 2.8 Suicide rates of males in selected European countries (per 100,000), latest available data 1997-1999



Source: (WHO 2001)

Are these high suicide figures in Eastern Europe related to the 'shock' of transition? Indeed, suicide rates rose sharply in the early 1990s in a series of countries, including Russia, the Baltic states, Romania, Ukraine and others (WHO 2001). In Hungary, however, there is no sign of a similar phenomenon. In contrast, as Figure 2.9 shows, during the 1990s suicide rates for both men and women declined. Similarly, there has been no rise in suicide rates in Slovenia and the Czech Republic. This may imply that social consequences of the transition may greatly differ in countries, which experienced 'smooth' transition from those where the transformation was more traumatic. Most likely, this is partly due to the fall of income, and the degree of social stability, including the functioning of the welfare state.

Figure 2.9 Suicide rates in Hungary (per 100,000), by gender, 1955-1999



Source: (WHO 2001)

Comparative statistics of suicide rates may however have major deficiencies related to underreporting⁴⁸. Is there any other measure of health, which would confirm the relatively negative situation of Hungarians?

Mortality in Hungary is also high in European standards. This is not a recent phenomenon, the negative trend had already started in the 1960s⁴⁹. During the past ten years one particular group was negatively affected, that of men between 40-49 years (KSH 1999b), for whom mortality figures have worsened severely, to the level of the 1920s and 1930s (UNDP 1998). As a result of high mortality, life expectancy at birth was only 66 years for men, and 75 for women in 1998 (KSH 2000). This is less than in any other OECD country (including other Central-European countries⁵⁰), except for females in Turkey (OECD 2001a, pp. 66-67). Reaching the age of 65, Hungarian women and men are expected to live 3.3-3.5 years less than an average person in the OECD. The potential years of life lost for men are by far the highest for Hungary (p. 72)⁵¹. These figures, however, do not seem

⁴⁸ Official Hungarian estimates for suicides (KSH 1998) are substantially lower than those of the WHO. The available methodological information is insufficient to know whether the discrepancy is due to methodological differences or not.

⁴⁹ While in all OECD countries there have been a major improvement in life expectancy in the past four decades, there has been practically no change for Hungarian men, and only a moderate increase for women (OECD 2001b, p. 66-67).

⁵⁰ For example in the Czech Republic the relevant figures are 70 and 77 years.

⁵¹ Briefly, this is a measure of premature mortality, defined as death before the age of 70 (OECD 2001b, p. 84).

particularly bad compared to Eastern Europe. The division line between Central and Eastern Europe exists in this respect as well. The relatively low Hungarian figures for life expectancy still significantly exceed those of Ukraine, Russia, and even that of the neighbour Romania. Finally, there is one further striking character of this indicator for Hungary: its regional dimension, especially for men. In Budapest, life expectancy for men is 2.7 years longer than in the Northern Hungarian region⁵².

Other measures of health do not contradict the previously described grave picture for the Hungarian population either (OECD 2001b, pp. 88-90). The proportion of daily smokers is somewhat higher than the OECD average, especially for men. In alcohol consumption Hungarians also exceed most nations. Hungarians drink more alcohol in a year than the British, about the same as the Germans and less than the French. Overweight is also a relatively grave problem for Hungarians: the obese population makes up 20% of women and 18% of men. With these figures (together with the United Kingdom and the United States) Hungarians 'qualify' as one of the leading nations in the OECD league. These measures all express non-medical determinants of health, and from our point of view their particular relevance is that they are results of individuals' choices.

2.3 THE WELFARE SYSTEM DURING TRANSITION

The socialist state, including the welfare state, had a 'Leviathan' nature, characterised by a highly centralised administration and a large scale redistribution of resources. Benefit entitlements in the social security system (for pensions, family support and for a long time for health care) were conditioned on employment. Since there was a strong commitment to full employment in the socialist economic system, and the overall majority of the working age population was employed, this condition in reality meant a universal coverage, based on a 'citizenship' basis.

As Tóth notes, social policy was practically a state monopoly, without any significant non-state funders or service providers, e.g. NGOs. Financing was predominantly based on taxes

⁵² The Northern region is defined as six counties, where 28% of the total population lives. The data refer to

levied on enterprises. This state monopoly, in his view, strongly restricted individuals' freedom and their choice as customers (Tóth 1994, p. 328). State provision – due to chronic shortages and the resulting rationing, and also the uneven quality of services in-kind – paradoxically was the source of unequal access. According to Tóth, 'some people were equal, and some others were even more equal' (p. 328). There were high quality elite services in health care and education with limited access, just as access to public housing was used as 'carrot or stick'. As Szelenyi, a major sociologist of social stratification in Eastern European societies, claims, under socialism state redistribution created inequalities, which were mitigated by the market, while under capitalism the market creates inequalities, which are then smoothed by state redistribution (1996).

The Hungarian welfare state, according to Kornai, was born 'prematurely' (1992a, p.15). The principles of government commitment were not realistic with respect to the level of economic development. It was for this, for the lack of resources, Kornai explains, that the state has failed to keep its commitments that it would satisfy a number of basic needs free or for minimal fee. The result is chronic excess demand and often poor quality.

'Added to the unkept promises of the classical system were the new concessions introduced during the process of reform that began in 1968. It was one of the characteristics of the Hungarian reform, sometimes referred to as "goulash communism", that it tried to turn its back on the previous policy of forced industrialization and devote greater attention to the needs of the general public. (Kornai 1992a, p.16).'

The great concern for the provision of adequate living standards for the majority, has led the state to overspending and indebtedness. In result, this actually meant a transfer of wealth between generations, benefiting those who lived during socialism on the expense of later generations, those living in post-socialist Hungary (Kornai 1996a)⁵³.

The welfare system during socialism thus does not seem to fit into any of the major typologies. Probably the approximation is Titmuss's '*institutional redistributive model*', because public social welfare was a vital institution in society, and it provided universalist services outside the market (1974, p.31). The organising principle, however, was not clearly 'need'

1998 (KSH 2000).

⁵³ There is one additional condition for why this debt lead to a transfer within generation, namely that the debt has not been repaid primarily on the expense of the elderly, e.g. in the form of reduced pensions.

as Titmuss characterises this model, but an arbitrary and rather ad hoc coexistence of different principles. In sum, the Hungarian welfare system was predominantly universalist, and based on state monopoly in financing and provision, with a massive involvement of state enterprises.

The welfare system could not function properly during the transition any longer for various reasons. Firstly, it seems to have increasingly failed in providing a social security net for the most needy (Andorka, Kondratas and Tóth 1995). Income inequality and poverty already started to increase in the 1980s. This tendency continued during transition, with a particularly deteriorating situation of the poorest. The welfare system, however, could not provide protection for them. Secondly, it did not foster social integration adequately. The relative disadvantage of the Gypsy population remained, and may have been even aggravated by the welfare system. Although their formal educational rights have substantially changed, and e.g. they have granted the right to educational facilities that teach the minority language and culture, educational practice has changed little. There were no adequate policies to raise their poor level of educational attainment, and thus increase their chances for labour market participation (Kertesi 1995). Educational segregation, which meant that the Gypsy children were often separated into special classes, sustained (Guglielmo and Waters 1996). The regional segregation of the Romany has also largely prevails, partly attributable to direct discrimination in sale, and allocation of housing by local governments (*ibid.*). Finally, the welfare system failed to operate efficiently. The high level of total social spending, financed from high level of taxes dampened the functioning of the new market economy.

The reform of the welfare system proved to be more difficult and much slower than many social scientists had hoped (e.g. Tóth 1994). In the early phase of transition the welfare state tried to smooth the negative impacts of transition, following its long-term 'paternalist' tradition (Kornai 1995). This traditional focus on raising people's welfare was the main reason why the Hungarian situation was labelled as 'Goulash communism'. According to Kornai, the first phase of the 1990s can be called 'goulash post-communism' (p. 1098). Despite this, however, the economic transition has resulted in a major shift in the relative responsibilities of institutions in the provision of welfare (for a presentation of the major changes in the welfare system, see Annex 2). The state, aiming to delegate some of its commitments, increased the responsibilities of individuals, enterprises, and passed on some

of its powers to local governments. Why was the reform process difficult? What has actually happened? The coming sections will search for answers to these questions.

The welfare state and individuals

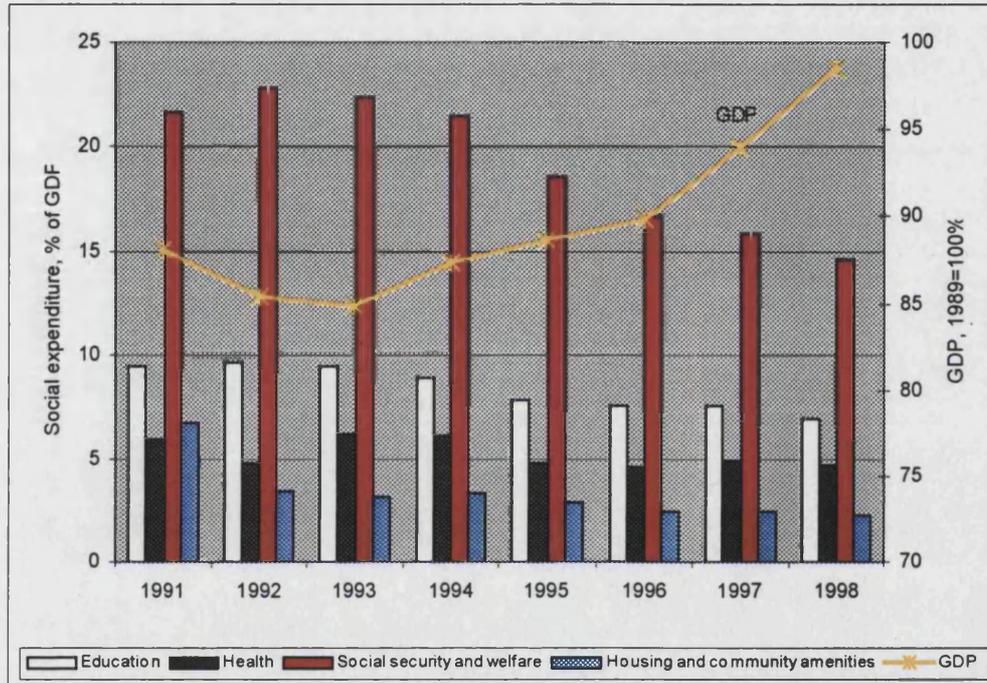
Several Hungarian scholars tried to describe the welfare system of the 1990s as increasingly liberal, or as liberal with conservative-corporatist elements (Deacon 1992; Ferge 1992; Tóth 1994), referring to the three-fold typology of welfare regimes by Esping-Andersen (1990). These views, however, seem rather loosely related to the original typology. Furthermore, this typology does not seem to be adequate to describe a welfare system in fundamental transition (Lelkes 2000). It focuses for example on current spending levels and does not consider changes in rights, entitlement and future spending commitments. In this way, it would disregard a major pension privatisation programme if current spending remained still dominantly public. The normative content of one of the main criteria used by Esping-Andersen, that of 'de-commodification' is also problematic in the context of transition from socialism. In the author's terminology, de-commodification means that 'citizens can freely, and without potential loss of job, income, or general welfare, opt out of work when they themselves consider it necessary' (Esping-Andersen 1990, p. 23). Beyond the arising incentive problems and possible 'unemployment trap', the use of this as a normative criterion for the assessment of a post-socialist welfare system seems inadequate. Instead of sweeping generalisations, a more fruitful way of characterising the welfare system seems to be the analysis of its specific segments⁵⁴.

The welfare system has changed in two major ways during the 1990s. Firstly, there was a major general decline of social spending both in real terms and as a share of the GDP. Total public social expenditure⁵⁵ fell by 30% in real terms between 1991 and 1998 [own calculations based on (IMF 2001)]. Using a different measure, it has declined from 46% of the GDP to 30% (ibid.). This reveals that there was a general decline of government welfare spending. In order to provide a fuller picture of the overall welfare system, this

⁵⁴ My own analysis has tried to test the 'liberal' hypothesis by discussing the role of the welfare state three specific aspects of income maintenance: family support, social assistance and pensions. I found that these different programs do not add up to constitute any specific type of welfare regime. Rather, the emerging, and still transitory welfare system appears "faceless" (Lelkes 2000, p. 92).

spending data should be complemented with tax expenditures, in other words tax credits and allowances provided for social policy purposes. Unfortunately no such data are available, which makes this element of the welfare system, which is also called 'fiscal welfare', invisible.

Figure 2.10 Social expenditure of the general government in Hungary, % of GDP, 1991-1998



Source: Own calculations based on social expenditure data (IMF 2001), and GDP and CPI (KSH 1994; 1997; 1999b)

Notes: The published data are produced by the Hungarian Ministry of Finance following a standardised methodology of the Government Finance Statistics Yearbook of the IMF. This specific methodology e.g. uses 'consolidated government expenditure', which means that intergovernmental transfers are excluded. The data presented above include expenditure of the whole general government, including local governments as well. The categories of classification are specified in great details by the IMF and are intended to provide full comparability with countries as well⁵⁶.

The second major change of the welfare system refers to its structure. As Figure 2.10 shows, in the early 1990s spending on social security increased as a share of GDP at the

⁵⁵ Total social spending includes spending on health, education, 'social security and welfare', and 'housing and community amenities'. For a detailed methodological description on these categories, see the Government Finance Statistics Manual of the IMF.

time of GDP decline. This meant that social security and welfare spending, including pensions as the greatest spending item, preserved its value in real terms despite the decline of the GDP. The year 1995 marks a turning point, with gradually declining social security spending afterwards. The related issues, including the pension reform steps, will be discussed in detail in the coming section. In contrast, the early 1990s already brought a major fall in government spending on housing and community amenities, which dropped altogether from 6.8% of GDP in 1991 to 2.2% in 1998. In real terms, this meant a drop of 62% in the same period. Government spending on health and education also suffered significantly during transition, with losses of 13% and 17% in real terms, respectively. Altogether, the extent of resizing the welfare system is probably unprecedented in the recent history of Western Europe. The Hungarian state, however, managed to implement such cut-back without major public outcry. What were the major policy tools which enabled such a drastic change? What were the main features of the social policy during transition? I will primarily focus on those aspects, which are most likely to affect people's quality of life.

Changes in entitlements: pendulum politics

In the early phase of transition the state tried to smooth the negative consequences of growing unemployment. The government decided to cover the additional costs of pre-retirement, which made possible to remove older workers from the labour market five years prior to normal retirement age, which was itself very low by international standards, 55 years for women and 60 years for men. Disability pensioner status was another exit route from the labour market, enabled by liberal law enforcement of eligibility criteria. The result was a 'great abnormal pensioner boom', in the terminology of Vanhuysse (2001). In his view, this was a rational and conscious government policy for pacifying people and buying patience during socially costly reform periods, rather than the result of the lack of action, e.g. due to the underestimation of costs (p. 860).

⁵⁶ An important sign of democratisation of Hungary is the increasing transparency of government policies. In the past, there was no officially published, internationally comparable data on social spending. Earlier efforts, including that of the author (Lelkes 1997), tried to prepare such data manually from budget documents. In recent years, however, the Ministry of Finance regularly provides data for the annual publications of the IMF on social spending (Government Finance Statistics Yearbook), and also for the OECD on tax revenues (Revenue Statistics of OECD member countries).

This government policy was substantially revised in 1996-98, when the state opted for delegating some of its responsibilities to citizens. The previously mentioned growth in the number of beneficiaries, due to early retirement, together with the decline of contributors, due to unemployment and inactivity, and due to the growth of the informal sector, brought major problems regarding the financial sustainability of the pension system. The 1992 pension reform settled institutional issues and set an indexation principle in the law (which did not exist before), but did not touch the basis of the system. Only the 1996 reform touched entitlements, and raised retirement age for men and women equally to 62 years. Due to increasing domestic fiscal pressure and the support of the World Bank, the government opted for a more fundamental change of the whole pension system (Simonovits 1998). The new scheme was first regarded a variant of the Chilean reform, but later all such reference to Latin American reforms were avoided⁵⁷ (Müller 2001). The new pension system is based on three pillars: a basic state pension, a compulsory private pension and an optional voluntary pension. The system is thus altogether a mixed type, still containing a predominant public pay-as-you-go scheme, i.e. a system where pension payments are funded by the current contributions of the working age population.

The change of government in 1998 brought a halt to the gradual implementation of the reform. The new government decided not to implement the gradual increase of contributions to the private pillar decided in the reform law, and thus reduced the future private element of the system. Also, they have abolished the compulsory entry to the new pension system for new labour market entrants, therefore preserving the fully pay-as-you-go scheme alongside the mixed scheme as part of the future pension system. This was probably a response to the unexpectedly high numbers of new entrants to the 'mixed', new system. According to Augusztinovics (1999), this highlights the main problem of the pension reform as well, that a proper estimation of future costs and the open public debate on these issues were lacking. From the individuals' point of view, the series of ad hoc measures, both in the old pay-as-you-go system (on indexation rules, for example), and on the implementation of the pension reform, undermine trust in both the public and the private pension system.

⁵⁷ It turned out that Chile was particularly ill-suited as an example in public discourse, as the connotations of the 'Chilean model' extended to the dictatorial political rule under which the well-known pension reform was

Another area of the welfare system, affected by substantial changes in the 1990s is family support. There is no clear trend for entitlement restriction here, since many of such limitations implemented mostly in 1995, proved to be temporary and universality was reinstated in 1998. As a result, the universal family allowance seems to function as an extensive 'social wage' for mothers caring for their children. However, this benefit is 'extensive' only in terms of its coverage, rather than its level. One further element of family support is that of maternity benefits, offering an earnings related benefit until the age of 2 of the child, complemented by a flat rate benefit until the age of 3. In addition, mothers with three or more children are entitled for a flat rate benefit if they stay at home, in addition to the universal family allowance. In contrast to these, a major policy choice of the Conservative government, which came to power in 1998, was to increase the real value of tax support at the expense of these universal flat rate benefits. This tax credit benefited only working families, moreover penalised those with low earnings, because they could not receive its full amount. This reinforced a normative element in family support, a certain criteria of 'merit' attached to employment, and also to higher earnings, rather than simply contributing to the costs of children primarily on the basis of need.

In the meantime, there have been numerous new benefits introduced in response to new social needs, primarily as social assistance and as unemployment support (see Annex 2). Notably, though, there is a clear trend of withdrawal of the government in unemployment provision following the original generosity: the entitlement period and the replacement rates have been repeatedly reduced, for the first time already in 1992.

The gradual restrictions in the duration of benefits and low outflow rates, resulted in a major decline of the proportion of unemployed people receiving unemployment insurance. By 1997 only 30% of the registered unemployed was covered by such benefit (KSH 1997). A particular feature of the Hungarian situation is that 'exhausting entitlement is the most common way of leaving the UI register' (Micklewright and Nagy 1999, p. 317). The authors find that about a half of all exhausters received means-tested social assistance in 1995. Thus means-tested social assistance is a major benefit type for the unemployed, and more of them are actual beneficiaries (over 40% in 1997) than that of unemployment insurance

carried through' (Müller 2001, p. 63).

(KSH 1997, Table 4.3). Notably, a significant proportion, nearly 30%, of the registered unemployed received no benefits at all.

This situation is problematic on various grounds. Firstly, not receiving unemployment assistance results a major drop in income (Micklewright and Nagy 1999). A smaller, but still significant decline awaits those who do receive such benefit after the exhaustion of UI. Secondly, the authors find that there is significant variation in the claiming and the award of benefits, for example by education level and by regions, unrelated to the income level of the claimant. This raises worries about the equity of the unemployment support system, although a positive sign is that Micklewright and Nagy found no evidence that benefit awards vary by the actual resources of the local governments.

The system of housing subsidies has also been radically cut back, primarily with the elimination of the highly subsidised housing loan system in the early 1990s. In sum, however, the transformation of the benefit system in terms of the eligibility criteria seems to imply partly expansion, and partly withdrawal of government responsibility.

Tactics for withdrawal: letting benefit value fall, privatising, and making people pay

Individuals had to face a more indirect way of government disengagement, which happened through the loss of real value of social benefits. Family allowances, for example, fell by over 50% in real terms between 1990 and 1998 (Ferge 2001, p.121). The drop in the real value of per capita unemployment provision was about the same between 1992 and 1998 (p.118). The 'passive' government policy, which ignored the indexation of benefits to inflation proved to be rather efficient in preventing major social protest⁵⁸. As a result of all these changes in the welfare system, total social expenditure fell from 46% of the GDP in 1991 to 30% in 1999 (IMF 2001).

Social spending on housing was cut back significantly, too. The generous subsidies for housing construction and maintenance proved to be unsustainable when inflation rose to two-digit figures in the late 1980s. The time bomb of subsidised loans with fixed interest

⁵⁸ Similarly, and more strikingly, there was no public outcry at the huge real wage loss either. In contrast, certain, more apparent changes in the benefit system, however minor they were, mobilised large demonstrations of protest (for example the introduction of tuition fees in higher education).

rates exploded. As a result, in 1990 the government greatly increased the interest rates and also offered a 40% reduction of the outstanding debt for those who opted for immediate repayment. A more important measure was, however, the transfer of social housing stock to local governments in 1990. In this year a major *privatisation* also started. Between 1990 and 1996 over half a million dwellings were sold, over two thirds of the existing social stock (Dániel 1997b; KSH 1997). As a result, the proportion of public housing declined to around 7%⁵⁹. First the most valuable homes were sold. Despite the major cumulative backlog of deferred maintenance, housing privatisation proved to be a 'national gift' (Dániel 1997b). According to Dániel, the main winners are the top groups in terms of housing value: those who lived in larger and better quality dwellings gained more and faced lower cost of renovation. The value of the privatisation 'gift', even after accounting for the costs of renovation, is estimated to be equal to about 11 years of average household income for the best quintile of housing.

The financing of the welfare system has increasingly become the individuals' responsibility. While tax revenue during socialism primarily came from enterprises, with the economic changes individuals' tax burden increased. In 1988 new taxes, such as Personal Income Tax and Value Added Tax were introduced, taxing incomes and consumption, respectively. In addition to this, individuals had to pay partly for their social security (in addition to their employers), including pension and health, and in addition to this, a contribution for a 'Solidarity Fund' for the unemployed. The new pension system is also increasingly based on individuals' contribution, or rather increases the link between benefits and contribution. The compulsory private pillar and the voluntary third pillar are both aimed to increase incentives to contribute, thus making people pay.

A striking feature of the welfare system, however, is the low level of tax awareness of people. As surveys show, Hungarians have major misconceptions of the 'tax price' of certain welfare services provided by the state: a high proportion of the population tends to significantly underestimate the actual costs (Csontos, Kornai and Tóth 1996; Kornai 1997; Csontos, Kornai and Tóth 1998). This 'fiscal illusion' seems to result in excess demand for state provision and also in a nostalgia for 'socialist welfare'. When, however, they were

⁵⁹ The statistical data include not only state property, but all other, except private property (KSH 1997, Table 6.2). The proportion of these were altogether 7.6% in 1996, which is predominantly made up of state property

actually informed about the cost of services, the majority of the people opted for a limited role of the state, a 'mixed system' of private and public provision.

Enterprises as providers of welfare

What were the characteristics of occupational welfare during socialism? How has it transformed in the late 80s? What were the main components of this shift in welfare provision between the state and the enterprises?

The provision of enterprise benefits in Hungary during socialism had both political and economic goals. A political goal was for example to maintain central control, because in most cases only (Communist Party dominated) trade union members were actually eligible (Fajth and Lakatos 1997, p. 168). Enterprise services also served as a means of influence on local politics, since the investment decisions using mostly state subsidies benefited the local communities as well. The primary economic goal of welfare provision was to use it as an incentive to workers and as a direct gain for the decision-makers themselves⁶⁰. This incentive effect was especially relevant in a socialist economy, where there was no major wage competition between firms and, due to the rigidities of the labour market, there was often a lack of adequate labour supply. These in-kind benefits were less important means for providing shortage goods for the workers than in other Eastern-European countries, because the market of goods in Hungary was relatively more developed. Nevertheless, in-kind benefits were less strictly regulated than wages in Hungary (after the reforms in 1968), moreover they were tax free. The most central planners did was that they prescribed a compulsory minimum of 'welfare funds'.

In the late 1980s, the major economic reforms included the introduction of a new tax system and a massive deregulation. The requirement for compulsory 'welfare funds' was abolished. As Fajth and Lakatos remark 'since then the former party-state pressure on employers to provide in-kind services has been replaced by complete neglect of the issue' (Fajth and Lakatos 1997, p. 171). As a result, benefits provided in-kind have been declining. As studies from the mid 90s show there was a major cutback in crèches, kindergartens,

(See also the discussion on occupational welfare later on.)

holiday homes for children, and workers' hostels, and a smaller fall in the number of holiday homes (Fajth and Lakatos 1997; Rein and Friedman 1997). In the meantime, however, other type of benefits, such as meal subsidies, clothing and subsidised housing loans have increased (Rein and Friedman 1997, Table 7.6, p. 146). As the data from 1992 show, the main item of the 'enterprise welfare' is food, including subsidised canteens and food coupons (ibid.).

At the same time, however the government transferred some of its social security tasks to the enterprises. New responsibilities of enterprises included contribution to unemployment compensation, severance payments, introduced in 1991, and early retirement. Some benefits financed by the social security system have been transferred to employers. For example, employers became increasingly responsible for the financing of sick pay for their workers. As a result, there has been a restructuring in occupational welfare: the declining proportion of benefits-in-kind has been accompanied by a rise in cash benefits. Total occupational welfare has become increasingly important: its share greatly increased as a proportion of real wages between 1988 and 1994 (Fajth and Lakatos 1997, p. 184). Although this is attributable to a fall in real wages, and these benefits have actually declined in real terms, this clearly shows their increasing role in the remuneration of employees. According to one calculation, total non-wage enterprise benefits reached 23% of gross wages in 1992 (Table 8.1, p. 177)⁶¹. Since the distribution of occupational welfare tends to be rather unequal, benefiting those in high-income positions the most, it most likely aggravates income inequalities.

2.4 CONCLUSION

Overall, it seems that the Hungarian situation resembles that of other Central European countries. Both the HDI and the level of GDP revealed a major divide both from 'the West', from the countries of the European Union, and also from the 'East', including the

⁶⁰ As Fajth and Lakatos note, the privileges of high-ranking political cadres were primarily linked to the Communist Party itself, not to the enterprises (Fajth and Lakatos 1997, p.169).

⁶¹ This figure includes social security payments paid by the enterprises, often on a compulsory basis, replacing public provision. Such payments are for example sick pay, early retirement, disability insurance and severance pay.

former Soviet Union and other East-European countries. The level of Hungarian GDP in 1997 was one third of the UK, Germany or Austria. Total output fell by 20% during the 'transformational recession', but regained its pre-transition level by 1999. Household incomes followed the decline of GDP, but showed a smoother pattern in the early 1990s due to government protection.

There are numerous specific features of social conditions in Hungary. The ratio of labour market participation is particularly low by European standards, even compared to Poland and the Czech Republic. This is not due to high unemployment, rather to high inactivity. The demographic and health situation is unfavourable in numerous respects as well. Fertility is somewhat worse than the European Union situation on average, but mortality and life expectancy statistics are particularly grave in relative terms. Hungarians stand very badly in the number of suicides as well, approaching the 'leaders of the league table', Russia and the Baltic states. Other indicators of health also reveal comparative disadvantage: there is relatively high consumption of alcohol and a high share of overweight population.

The dynamics of change over time shows that there was a major decline of labour market participation during transition, reaching nearly 30%. This meant declining opportunities for the majority, but particularly for the low skilled and the elderly labour force. An opening window of opportunity was that of entrepreneurship, as a result of greater liberalisation. Demographic and health indicators show a mixed picture. The divorce rate continued to increase in the 1990s, following a long-term trend. The number of suicides, however, appears to have gradually declined in this period.

The welfare state withdrew in the 1990s, both as a redistributor and as a provider, and delegated some of its responsibilities to individuals and to enterprises. Undisputable ways of government withdrawal included the erosion of the real value of most cash benefits, and a major housing privatisation programme. Eligibility criteria were often modified at changes of government, which meant a 'pendulum politics', since so far all the democratic elections (that is every four years) removed the incumbent from political power.

Has the transforming welfare system, which was labelled as 'paternalist' during socialism, provided increasing choices for the people? The welfare state traditionally has had some positive features in terms of choice, which have only moderately increased, if at all. One

major characteristic of the socialist system was the generous maternity provision, combined with strongly subsidised day care for children. This provided most women a real choice between work and home care for their children. The declining value of these benefits, and the trimming of eligibility (even if these are often restored), together with the cutback of kindergarten facilities by enterprises made this work-welfare choice more constrained. An element of increasing choice is related to the new pension system: optional private pension was introduced and made part of the whole pension scheme.

This chapter gave an overview of the level of well-being in Hungary and its changes over time. The following analysis will look at the distributional aspects of these issues. What are the implications of the presented facts for the later chapters? As mentioned, there was a rise in both inequality and poverty during the 1990s. What are the major inequalities in terms of income? What are the main lines of division in income position? Is it 'human capital' and labour market situation as hypothesised previously? These issues will be examined in the following chapter.

A major negative consequence of transition was the decline in labour force participation. Later discussion in chapter 4 and 7 should find out which social groups suffered the most. As briefly mentioned, the gender gap in Hungary is relatively low by international standards. Was the shrinking of the labour market 'gender neutral'? Also, is the low share of part-time jobs an indication of low participation of women?

A possibly major change in the welfare system is that of housing privatisation. The winners and losers of the privatisation have been already analysed in the literature. There is little said on what happened to the 'leftover' public housing. What is its quality and who are the remaining tenants? Is tenant status an indication of social disadvantage? I will look at these issues in Chapter 4.

The Hungarian population in general has very unfavourable indicators of health and mental health. Both in terms of those indicators, which are related to health care (such as mortality), and which are related to life-styles, thus individuals' choices (alcohol consumption, suicide). Does this refer to a general social crisis of alienation and anomie? Is Hungary a pessimist nation suffering from grave dissatisfaction? This issue will be analysed in the second part of the thesis, in chapter 5. A potentially interesting issue is to what

extent health determines happiness? Later analysis in chapter 5 will include this issue, when discussing the relationship between people's satisfaction with various aspects of their lives and their general life satisfaction.

The increasing share of market incomes within total incomes shows that people have to increasingly rely on their own performance in earning their living. How does people's income determine their overall happiness? Has income increasingly become a condition for happiness?

ANNEX 2.

MAJOR CHANGES IN THE HUNGARIAN WELFARE SYSTEM, 1985-1998

<i>Area</i>	<i>1985-1989</i>	<i>1990 (Election year) - 1991</i>	<i>1992-1993</i>
<i>Economy policy – relating to social welfare</i>	1988: introducing personal income tax and value added tax 1989: foreign trade liberalisation	1990: Abolition of price control by state bodies 1991: bankruptcy law (the first one, passed in 1986 has not been enforced)	
<i>Pensions</i>	1989: Social Security Funds become independent of the central budget	1991: introduction of early retirement	1992: Social Security fund is replaced by two separate funds for Pension and Health – with elected governing bodies of representatives of employers and employees (and not the government) 'Partial pension' is introduced for those who do not have the necessary insurance period; indexing of pensions to net wages
<i>Family support</i>	1985: introduction of the earnings related maternity allowance (gyed) (up until 2 yrs of age of the child) 1986: extending the eligibility for flat rate maternity benefit (gyes) (up until 3 yrs)	1990: existing family allowance is made universal (replacing employment as eligibility criteria)	1993: introduction of a lump sum maternity grant introduction of child raising grant for mothers who stay at home caring for three or more children below the age of 10 (gyet) (flat rate, means-tested)
<i>Employment</i>	1986: first, partial unemployment support scheme 1989: introduction of comprehensive unemployment support	1991: <i>Employment Act</i> : creation of the 'Solidarity Fund' (extra-budgetary fund), introduction of training grants for the unemployed, and that of compulsory severance payment	1992 and 1993: reduction in unemployment benefit levels and entitlement periods (to 12 months by 1993), increases in the rate of contribution
<i>Social assistance</i>		1990: major local government reform: new financing system, new financial resources for social policy purposes	1993: <i>Social Act</i> : local governments receive extensive discretionary rights in the provision of cash benefits introduction of new benefits, e.g. the public health voucher system, which provides free medicine Introduction of 'income compensation allowance' for the long-term unemployed (with no time limit)
<i>Health care</i>		1990: health care financing is moved from central budget to the separate Social Security Fund	1992: new financing, getting closer to an 'insurance' principle
<i>Other</i>		Abolition of statutory state support for nurseries	

<i>Area</i>	<i>1994 (Election year) - 1995</i>	<i>1996-1997</i>	<i>1998 (Election year)</i>
Economy policy – relating to social welfare	1995: Restrictive 'Bokros package' with a series of measures aiming to stabilise the economy and restrict government spending (some of the measures were later declared unconstitutional by the Constitutional Court and were abolished)		
Pensions	1994: Entitlement for early retirement is extended (from 3 to 4 yrs before retirement age) Employment during early retirement is restricted. 1994: Voluntary pension funds introduced next to existing state pension system; major tax allowance on contributions	1997: Pension age is increased to 62 years, both for men and women (from 60 and 55 yrs, respectively) 1997: Pension Reform Act introduction of a new pension system based on three pillars	Modifying the implementation of the pension law in order to keep 'status quo' (maintain the share of contributions to the state pillar)
Family support	1995: Family allowance: becomes means-tested for families with one or two children, for others it remains universal Maternity allowance (gyed) is eliminated Maternity benefit (gyes) becomes means-tested	1997: Child Protection Act statutory income-tested child protection support	Family allowance becomes universal again (on the condition that children above 6 attend school regularly) Maternity benefit (gyes) becomes universal again Child raising grant (gyet) becomes universal
Employment	'Income compensation allowance' for the long-term unemployed is restricted to 2 years	More extensive active labour market measures Employers are obliged to cover 1/3 of <i>sick pay</i> .	Equal opportunities Act for people with disabilities
Social assistance			
Health care	1995: New system of pharmaceutical subsidies – as a result, medicine prices increase by 53% in March Decision on reducing hospital beds by 10,000.	Introduction of user fees in health care (examination fees)	
Other	State support for nurseries is reintroduced.		

Sources: (Tóth 1994; Kornai 1996a; Ferge 2001)

INCOME INEQUALITY

This chapter discusses inequality of incomes. What makes incomes interesting, despite the general focus of this work on 'functionings', or well-being? As explained in detail in the first chapter, the objects of value are 'ends' in this thesis. Income is just a 'means'. Income, however, is a major determinant of well-being. It expresses a certain level of freedom, a potential command over goods and ultimately over a certain quality of life. It is due to this characteristic that income is often used in the literature as a sole approximation of well-being. Much of the literature on income inequality and income poverty is based on the assumption that people are the best judges in promoting their own welfare given their resources. It then follows that it is enough to be concerned about the resources they have. Although this may be a problematic claim on many grounds, it is indisputable that the use of income makes interpersonal comparisons possible and enables methodological parsimony. Primarily, however, it is due to its importance as a determinant of well-being that income will be discussed in greater detail here. In sum, income may be called a proxy for well-being as an 'end'.

The main concern of this chapter is income inequality: its level, its change over time and its explanation. The explanation focuses on the differences between various social groups, or in a dynamic approach, the winners and losers of the transition process. The notion of income used will be one which seems to be the closest to 'well-being': household income, adjusted for household size. This means that I assume that family members share their incomes equally. This may be a rather generalising, and at times crude assumption, but seems more suitable than the other simple alternative, assuming no sharing at all. (This issue will be discussed in more detail later on.) Although earnings are more clearly related to individual performance, and appear to be a valuable means for assessing economic transition to a market economy, they are less relevant from the point of view of the current research, and so are not considered in depth.

Due to the fact that most of the existing empirical evidence on Hungary gives very limited or no account at all of the methodological choices made. I have dedicated the substantive part of this chapter to explaining these. The analysis will use income variables, all of which have been aggregated or generated by the author, following the instructions of the survey institution. This gave full control of the content of these variables. In addition, I have implemented an imputation procedure for both surveys, thus allowing comparability. The main reason for this was that the 1992 dataset did not use any imputation and the use of

the raw data would have meant a greater number of missing cases. Imputation procedures are widely used elsewhere, including e.g. the British Household Panel Study in the UK. The methodology of the imputation is described in detail in Appendix D.

3.1 INEQUALITY AND TRANSITION: EXISTING EVIDENCE

For most domestic policy makers and foreign advisors, income inequality and poverty were not cardinal issues to be considered during the years of transition. Their focus on the restructuring of the economy, first of all privatisation and market-oriented legislation, and macroeconomic stability may be interpreted as a primary concern with efficiency. Some believe that efficiency was to be promoted at the cost of equality. This trade-off, as formulated in the classic study of Okun, implies that any efficiency gain has a cost in terms of equality (Okun 1975). A more specific formulation of the relationship between equality and economic growth has been proposed by Kuznets in a seminal article (1955). He assumes that in the early phases of economic development inequality rises, and when a maximum in inequality is reached, it reduces again. The relationship between inequality and GDP growth may be depicted as a curve following an inverted U-shape. Kuznets discusses long term historic trends of inequality, e.g. identifies the phase of growing inequality as the transition from pre-industrial to industrial society (that is for England from 1780 to 1850) (pp 18-19)⁶². Hölscher argues that the Kuznets curve may be adequate for describing Poland and Hungary (2001). It is not entirely clear how he arrives at such a conclusion, since in his argument the level of inequality in these countries has not reached the maximum point yet, so it is doubtful whether further economic growth would go together with declining inequality or not⁶³. From placing of the Hungarian situation before the maximum on the Kuznets curve, follows the provocative conclusion: 'some more inequality for the benefit of the upper middle classes [...] would have a growth promoting effect through increased demand for household consumption' (p. 23)

⁶² Especially for this historic aspect of Kuznets' idea, it appears problematic to refer to his approach as a possible application for the relatively short time-span of Eastern-European changes.

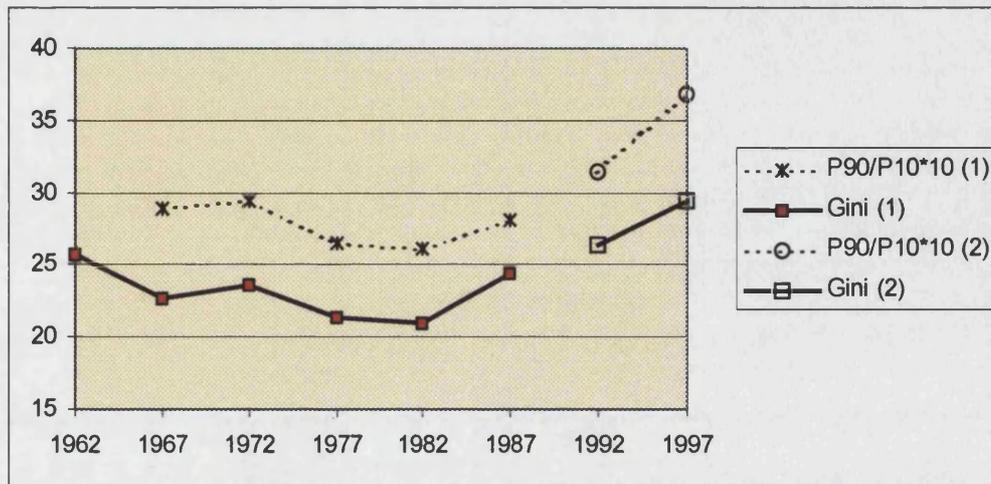
⁶³ Aghion and Commander arrive to a similar conclusion, namely that a Kuznets curve may exist in Central-Europe, but not in Russia (1999). Their argument, however, is built entirely on a theoretical model. They acknowledge, that their results are sensitive to the starting hypothesis. 'If inequality in labour income within the private sector is assumed to be relatively high, the Kuznets curve representation will not apply' (1999, p. 291).

Rising inequality, however, may not matter necessarily per se, depending on one's objectives. If the position of the least well-off does not deteriorate in absolute terms, or on the long run it improves, then the increasing relative advantage of the better-off may not be ethically problematic. This criterion of justice is based on the greatly influential work of Rawls (1971)⁶⁴. A pragmatic position, which may be also related to this criterion of justice is the so-called 'trickle down' view. According to this, economic growth is to be pursued, because greater prosperity will improve the absolute position of the disadvantaged. The assessment of such views is not the subject of this study here. An important implication of this, however, is that the analysis of inequality cannot be solely reduced to the exploration of the relative position of certain population groups. The actual material situation, the absolute position has to be also considered.

For the assessment of the transition process it is essential to be aware of the starting position. This was the aspiration of the research of Anthony Atkinson and John Micklewright, which provides a comprehensive overview of income distribution during socialism in Eastern Europe (1992). As long-term trends show, rising income inequality is not exclusively a feature of economic transition in Hungary. Inequality started to rise already in the 1980s, following the liberalisation of private sector ventures. This has continued in the economic restructuring of the 1990s (see Figure 3.1)

⁶⁴ According to Rawls, social and economic inequalities "must be to the greatest benefit of the least advantaged members of society" (1985, p. 227).

Figure 3.1 Long term trends of inequality in Hungary



Source: 1962-1987: (Atkinson and Micklewright 1992); 1992-1997: (Tóth 2001)

Note: Individual distribution of household income per capita

Transition brought a significant decline in absolute incomes. As presented in the previous chapter, both household income and consumption have decreased. The surveys used here show a 30% drop of the average net equivalised annual household income in real terms between 1991/92 and 1997/1998⁶⁵. Similarly, total personal income fell by 32%. The extent of this fall is the largest among the bottom two income decile groups. The average real income of the bottom decile group shrank to 44% by 1998 compared to 1992. The decline of income in the third to tenth decile groups, between 69% and 73%, was relatively less, but still rather high. Official statistical data show a significant volatility during the 1990s (see Figure 2.3), but the degree of income fall in the same period is much smaller, makes up only a few percentages. Unfortunately there is no clear definition of the income variable ('real income') used by the Central Statistical Office, which prevents the comparison of the official information with that of the survey used here. Nevertheless, the discrepancy between the figures raises some concerns about data quality, which unfortunately cannot be resolved here.

There is some disagreement about the actual level of inequality in the 1990s, but the rising trend is clearly apparent in all studies (see Table 3.1). A good example for the controversy

⁶⁵ Own calculations, using annual CPIs for the April to March period in order to match the survey period.

over levels is given by Hungarian scholars, who challenge a World Bank report⁶⁶, which claims that income inequality in Hungary is the smallest in the region, including Poland, Slovenia, the Czech Republic, Slovakia and Bulgaria (Andorka, Ferge and Tóth 1997). In their review of the existing empirical evidence on inequality in these countries the authors seem to successfully challenge the claim of the World Bank, but for example cannot clearly conclude whether inequality is higher in Hungary or in Poland. The results of these studies differ even when the same measure is used, the Gini coefficient. Why do various measures of inequality differ?

⁶⁶ A widely used secondary data-set on income inequality is assembled by Deininger and Squire (1996) at the World Bank. Atkinson and Brandolini (1999) criticise this dataset for the limited information available on methodological choices, and on the limited number of observations (one per country per year), which does not allow for differences in the units of analysis, equivalence scales, weighting, and the concept of resources.

Table 3.1 Income inequality in Hungary, overview of existing publications

Reference	Data source	Population	Measurement unit	Income variable	Measure of inequality	1987	1992	1993	1994	1995	1996	1997	1998
(Galasi 1998)	Household Panel Survey (A) ⁱ	Total	Individual	Household per capita income	Gini (%)		28.53	28.20	30.66	31.78	31.19		
(Tóth 2001 and personal communication)	Household Panel Survey 1992-97 (B) ⁱⁱ Household Monitor 1998	Total	Individual	Household per capita income	Gini (%)		26.34	27.21	29.42	29.57	29.04	29.41	27.59
(Medgyesi, Szivós and Tóth 2000)	Household Panel Survey 1992-97 (A); Household Monitor 1998	Total ⁱⁱⁱ	Household	Equivalised household income (e=0.73)	Gini (%)		29.50	27.75	29.47	31.62	30.85	30.85	32.00
(Redmond and Kattuman 2001)	HBS 1987, 1995	Working age	Household	Equivalised household income (OECD scale)	Gini (%)	18.8				25.2			
(Milanovic 1998)	HBS 1987, 1993	Total	Household	Household per capita income	Gini (%)	21.0		22.6					
(Andorka et al. 1997)	SOCO 1994	Total	n.a.	Equivalised household income (e=0.5)	Gini (%)				27.9				
World Development Report 1996, Table 4.1 ^{iv} (World Bank)	World Bank data	n.a.	n.a.	n.a.	Gini (%)			23.0					
(Galasi 1998)	Household Panel Survey (A)	Total	Individual	Household per capita income	P90/P10		3.35	3.38	3.96	3.90	4.13		
(Redmond and Kattuman 2001)	HBS 1987, 1995	Working age	Household	Equivalised household income (OECD scale)	P90/P10	2.25				3.03			
(Tóth 2001 and personal communication)	Household Panel Survey (B); Household Monitor survey 1998	Total	Individual	Household per capita income	P90/P10		3.14	3.28	3.46	3.59	3.55	3.68	3.27

ⁱ Household Panel Survey (A): N=5770 (1992)

ⁱⁱ Household Panel Survey (B): N=7265 (1992); sample A extended with a Budapest subsample

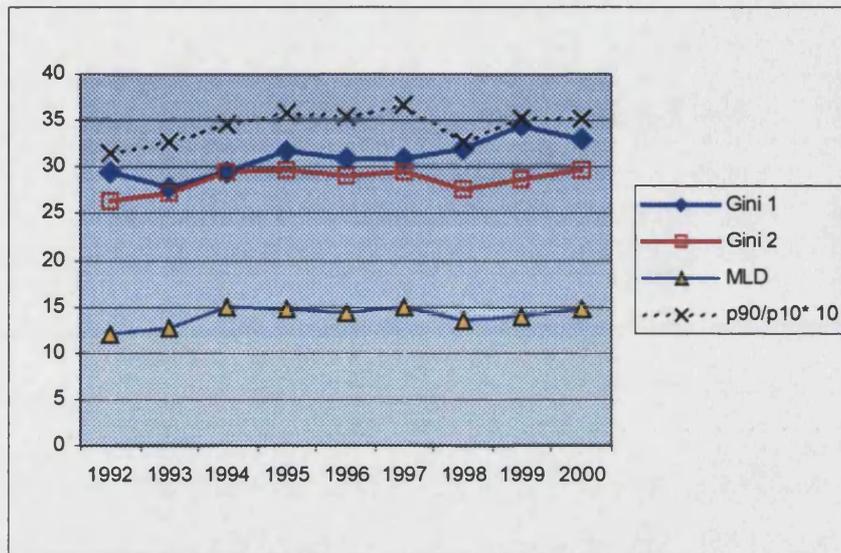
ⁱⁱⁱ excluding those cases where any income component is missing

^{iv} In the same document, on p. 197 the World Bank published a rather different figure for the same year, Gini=27.0. There was no methodological explanation given for the divergence. 'Any differences in Gini coefficients [...] are due to differences in samples, time periods, definitions, or other technical assumptions' (World Bank 1996, p. 69).

The differences between various results on inequality in Hungary have two main causes, the choice of the dataset, and methodological diversities. The major datasets used are the Hungarian Household Panel Survey, which was followed by an annual cross-sectional survey called Household Monitor produced by the same survey institution, TARKI, and the Household Budget Survey (HBS) of the Central Statistical Office. Calculations using the HBS seem to show a lower level of inequality. A further cause of the divergence is due to ex-post changes in the Panel dataset itself. Earlier publications were based on a national sample of households ('sample A'). This sample was a few years later expanded with a large Budapest subsample (surveyed at the same time), and this joint sample was kept representative of the population with the use of appropriate weights ('sample B'). This extended sample is the dataset I am using here. This sample has been used by others only in recent publications, and seems to show lower level of inequality than the "original" dataset (Tóth 2001)⁶⁷.

⁶⁷ A further reason for the divergence that in earlier publications all those cases (households) were excluded from 'sample A', where any one of the income components of any household member was missing. This might have caused a selection bias. Here such cases are included, provided it was possible to impute income. This was exactly one of the main goals of the income imputation procedure, i.e. to reduce missing data.

Figure 3.2 Income inequality during transition, various measures



Source: (Tóth 2001, pp. 11-12, 25)

Notes: Gini 1 (%), Household distribution, using sample 'A'

Gini 2, (%), MLD and p90/p10*10: Individual distribution, using sample 'B' (extended with Budapest sub-sample)

As Figure 3.2 shows, there is a rising trend, although it is rather mild. Measures using the so-called extended dataset, the same one used in the following analysis, all show a 'pit' in 1998, a halt in the rising trend of inequality. The reasons for this are not explained in the literature. The choice of 1992 and 1998 as points of comparison, thus inevitably means that the measured rise in inequality is expected to be modest.

Methodological differences also cause divergence between estimates of income inequality. One major methodological choice is whether the household or the individual is the unit of the analysis. The most well-known published figures used household as the unit (e.g. Förster et al. 1998; Medgyesi et al. 2000). This choice, and some other ones are often not clearly stated in the studies. This makes it rather difficult to clearly track the causes of the differences. Therefore, it is essential that here I explicitly describe the methodological choices, including those which are standard methods internationally and may be assumed to be used by the other Hungarian scholars.

In this chapter I will explain the methodological background of the analysis. Rising inequality was accompanied by falling real incomes on average. I will present both absolute and relative measures of income distribution, which will capture the effects of this. The calculation of summary measures of inequality will be expanded with limited sensitivity tests, including the choice of the sampled population, the unit of analysis and the equivalence scale of household income. The scope of these, however, will remain limited, since my primary focus is not the description of overall inequality but the relative situation of specific population groups and the change of their situation during transition. In order to analyse these issues, I will present multivariate analysis.

Analyses of income inequality have so far primarily focused on the decomposition of inequality *by sources of income* (e.g. Milanovic 1998; Medgyesi et al. 2000; Kattuman and Redmond 2001; Redmond and Kattuman 2001) with less emphasis on decomposition *by household or individual characteristics* (Redmond and Kattuman 2001; Tóth 2001). The studies find that inequality of earnings rose, and at the same time earnings became more concentrated as a result of declining labour market participation. There was also an increasing diversity in the sources of income. As expected, income from self-employment rose, and increasingly contributed to inequality (Kattuman and Redmond 2001). A decomposition analysis of the change in the Gini coefficient between 1989 and 1993 shows that wages and to a less extent state pensions contributed to the rise in inequality, while other state transfers had an inequality reducing effect (Milanovic 1998, Table 4.2). Similar results are presented in the decomposition of inequality in 1993 and in 1996 by others (Kattuman and Redmond 2001). This reveals a somewhat counterintuitive role of the state in the redistribution.

State redistribution and its influence on income inequality have gradually declined during the transition period. First, in the years of early transition taxes and state transfers seem to have held back rising inequality of total household incomes. Later, state transfers became increasingly polarised, first of all pensions and other benefits⁶⁸. Thus those who received pensions 'maintained some parity with wage earners, while people who receive other sorts of

state transfers have begun to fall far behind' (Kattuman and Redmond 2001, p. 61). Altogether, however, *state redistribution* appears to have still reduced inequality of market incomes throughout the 1990s (Tóth 2001, p. 16). It is noteworthy, that Kattuman and Redmond, using a different dataset, find that *state transfers* played a somewhat regressive role in 1996 (2001, p. 60). The income tax system has also become less redistributive over time after its introduction in 1988. The main reasons are probably the declining importance of employee earnings, and the growing diversity of income sources, which resulted a declining efficacy of the tax collection.

There is a general agreement in the literature on the basic relationship between personal characteristics and the income position. Habich and Spéder, using a panel study for the analysis of income dynamics during the early years of transition, find that the main groups of 'losers' are those who stayed outside the labour market (1998). Children in the family are also a typical source of financial disadvantage. As with other studies (e.g. Tóth 2001), they find that there is a significant regional disparity between the capital and smaller settlements, the former having far more prosperous inhabitants. Likely 'winners' are the groups of those in higher management positions, those with higher education, and the self-employed. There is also agreement on that Gypsy ethnicity is most likely associated with lower income. In sum, the role of human capital and labour market participation in determining a person's income position seems to have increased over time (Redmond and Kattuman 2001).

3.2 CONCEPTUAL AND MEASUREMENT ISSUES

Atkinson emphasises that the notion of income used by most economists differs from everyday definitions, for example from the definition of income for tax purposes. The former definition is described as the following:

⁶⁸ One reason for this polarisation was that pensions sustained their real value relatively well compared to unemployment compensation or family benefits (Lelkes 2000).

'income in a given period is an amount a person could have spent while maintaining the value of his wealth intact. Or, as it was described in the classic treatment by Simons, "Personal income may be defined as the sum of (1) the market value of rights exercised in consumption and (2) the change in the value of the store of property rights between the beginning and end of the period"' (Atkinson 1983, p. 39) (originally in: Simons 1938, p. 50).

This is a comprehensive definition, and includes items such as capital gains, fringe benefits, production for home consumption, and imputed rent. How closely does the survey definition of income come to this interpretation in the dataset used in this thesis?

Components of income

Capital gains are clearly part of this definition of income. A change in the value of wealth, for example due to an increase of the value of the shares owned by the person on the stock market, enables her to spend this amount and also to maintain the value of her wealth. It follows that all positive and negative change in the value of wealth should be regarded as part of her income. Note, that this also means that if long-term real interest rate changes, then the value of wealth changes, even if the future income stream is identical. Such adjustment, however, is rather difficult not only on an individual, but also on a national level⁶⁹. It would assume a clear knowledge of a person on the current value of all his wealth and a correct recall of its past value. In practice, this would result rather unreliable survey results. Thus, capital gains and losses are for practical reasons only exceptionally used as elements of the notion of income used here and in most studies (e.g. Gottschalk and Smeeding 2000).

Fringe benefits, benefits relating to employment should be part of income theoretically, and the current Hungarian surveys also try to include them. In Atkinson's definition this refers to benefits in kind provided by the employer (Atkinson 1983). Others use it in a broader sense, referring to all cash and non-cash benefits beyond wages (Fajth and Lakatos 1997). Both

⁶⁹ Although the inclusion of change in the value of assets is clearly acknowledged as part of current income in the methodology of the national accounts of the state, in my experience in Hungary's Ministry of Finance, such adjustment is very partially done. The main reason is that it would require detailed information on all the state-owned assets. Such a comprehensive account, to my knowledge, still has not been prepared up till now.

surveys of 1992 and 1998 include questions referring to food, travel, housing, clothing and other subsidies provided by the employers. Since all these items have a Forint value, it is easy to include them in total income. In contrast, although the 1998 questionnaire investigates the ownership of company cars, it seems problematic to include this item into the calculation. One possible way would be to estimate a monthly cost of a similar car, had it been financed by the person himself. For this, the calculation would need to be based on the total cost of the car, its total lifetime and all the costs incurring during this period. Such estimation would be rather time consuming, since to my knowledge there has been no similar attempt in the country.

Production for home consumption is also part of this notion of income defined before, because it enables households to consume without a change in their wealth. From this point of view, it makes no difference that these goods are actually not acquired through a market transaction. The Hungarian surveys investigate two measures of household production: animal farming and the growing of crops. The market value of these products is based on the estimate of the households themselves.

A similar type of income in kind is related to housing: those who own their homes enjoy the benefits of it without having to pay a rent for it. They consume, but in the meantime their wealth remains unchanged. Thus this saving, the *imputed rent*, is theoretically also part of the household's current income. Including imputed rent into income would also enable us to treat all households equally, irrespective of their housing ownership. A similar argument applies to assets, such as a second home, a cottage, or a car, or to consumer durables. Among all these, however, housing is outstanding due to its significance. The imputation procedure, however, would require a well-functioning and undistorted private rental market. With this, and information on seasonal variation and price variation over region and time it would be possible to calculate hedonic indices. The private rental market, however, is very small and is mostly 'hidden' in Hungary, being based on informal contracts. Property markets are also very thin and the prices are very volatile. This seems to be a major barrier for such estimates. Pudney also strongly emphasises these problems in his calculations using 1991 data (1995). He measures the impact of implicit rent subsidies (but not that of mortgage subsidies), and finds that these are not targeted towards the poor, but on average increase with income.

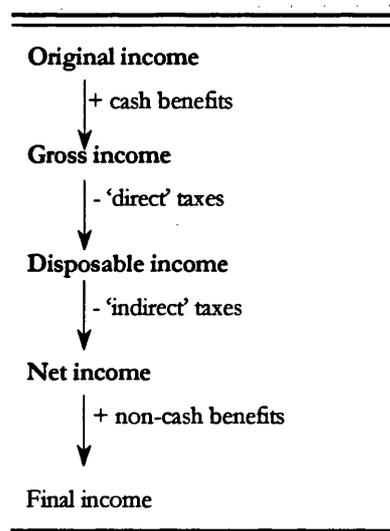
An alternative approach for accounting for differences in housing, used in the United Kingdom for example, is to compare incomes after the deduction of housing costs (Great Britain. Department of Social Security 1997). By using this method, differences in rent are considered. The obvious disadvantage of this method is that greater housing costs may be associated with better housing quality (Hills 1998). The British solution is the simultaneous use of the 'before housing cost' and the 'after housing cost' figures, which can also account for changes in housing subsidies. [More on this approach, including its critique, see (Gardiner, Hills, Falkingham, Lechene and Sutherland 1995).] In the following analysis I will not account for housing costs or subsidies in common with other analyses on Hungary.

Non-cash state benefits, also called benefits in-kind are also part of this definition of income, but due to measurement problems they are not included in the income definition used in the current thesis. The consumption of welfare services provided by the state, such as health care and education is a substantial part of households' welfare. Interestingly, its inclusion into income would change the patterns of income distribution, since it affects different income groups to a varying extent. For example, the elderly, who have below average income, are major beneficiaries of the health care system. Thus, including in-kind benefits in total income would show the elderly relatively *less* poor compared to a distributional analysis based only on cash income. A distributional analysis of the changing provision of in-kind benefits by the government during transition seems to be a rather exciting topic. The inclusion of health care, however, would dominantly reflect differences in *need*, rather than that of living standards. Having greater need, being more sick, would thus appear as an addition to living standards. Therefore a possible correction for differences in health care, as proposed by Gardiner, Hills et al. is that a specific sum of health spending could be deducted from income, namely the value of health care needs, which are not covered by publicly available health care, or actual private health spending (Gardiner et al. 1995). The methodological problems, however, such as the actual consumption of these goods and their pricing, goes beyond the scope of this current work.

There are various alternative definitions of income for the treatment of *taxation and benefits* (see Table 3.2). The choice the phase of redistribution where someone is analysing income inequalities has major consequences on the outcome. As we would expect, redistribution by

the welfare state decreases inequalities (e.g. see a study on Hungary: Medgyesi et al. 1999). This is a generally valid observation, even if redistribution is not the only and not the main goal of the welfare state. The survey questions come closest to the notion of *disposable income*, because they ask how much income a person has ‘taken home’. This thus considers the impact of direct taxes (personal income tax), but not that of indirect taxes (consumption taxes). The value of indirect taxes is generally not considered in the countries of the Luxembourg Income Study (LIS) either, partly for disagreement on how to measure it (Gottschalk and Smeeding 2000, p. 269).

Table 3.2 Income and the effect of taxes and benefits



A specific issue in the context of economic transformation is that of *price subsidies*, a typical way of market intervention during socialism, which has been mostly abolished in the early phase of transition. As Flemming and Micklewright emphasise the whole impact of state manipulation of the price system has to be examined, not only explicit consumption subsidies (2000, pp. 852, 905). Contrary to expectations, however, it seems that the removal of price subsidies did not have any impact on the income distribution. Analysing panel data for the period between 1987 and 1991, Newbery finds no evidence that the removal of subsidies and the introduction of VAT in 1988 had any significant distributional impact (1995). One possible explanation for this, proposed by the author, may be that the targeting of taxes and price subsidies was already rather weak, primarily because ‘by the early 1980s Hungary had already abandoned the indirect

tax system as a mechanism for redistributing consumption preferentially towards the poor' (p. 862).

*Income from the informal sector*⁷⁰ may cause major problems in the reliability of income measures. The reasons are that it is not recorded, and that its size is supposedly extensive. According to János Kornai, in the late 1980s 'at least three-quarters of all Hungarian families' made some contribution to the second economy (1988, p. 243). In addition to the various legal ways of participation in the second economy, there has been a prevailing culture of non-compliance, involving tax evasion and avoidance. Crudely, one-fifth to one-quarter of total national output may have been created outside the first economy in the 1980s (Kornai 1988, p. 243; Gábor 1989, p. 353). This has further increased later on, as a result of deregulation and the smaller enterprise size. The surveys include questions referring to occasional jobs, entrepreneurial income and also tips and gratuities. Certain under-reporting, however, is very likely. Under-reporting is a typical data quality problem elsewhere, too, primarily affecting cross-national comparisons of inequality (Gottschalk and Smeeding 2000, pp. 270-1). One possible variant of this problem, that of non-response, was compensated for by generating incomes with imputation in the surveys used here. Although I cannot judge the real potential implications of underreporting, it seems reassuring that in general relative incomes follow the expected pattern; e.g. entrepreneurs have the highest average income among all labour market groups (see Figure 3.5 later).

Income unit: family, household, individual

Ultimately, we are interested in individual's welfare. However, individuals are members of households, where incomes, resources are shared. How can the welfare of the individual be

⁷⁰ As Bernabe shows in her comprehensive overview, there is a major terminological debate, and the term 'informal', 'black', 'underground', 'unrecorded', 'hidden', 'shadow', 'irregular' all have been used (Bernabé 2002). She develops a conceptual framework for the different types of 'hidden activities', and argues that in transition economies, especially in the former Soviet Union, *informal* activities are undertaken in order 'to meet basic needs'. Informal sector in her typology is distinguished from '*underground* activities', which are deliberately concealed from public authorities (e.g. tax evasion), from *illegal activities* and from *household production* for own consumption. The definition of informal sector used here is different from hers, since it also includes 'underground activities', unmeasured and unrecorded production.

derived from household information, available in household surveys? There seem to be two major issues of concern. The first is the comparison of families with different size, with different needs. We clearly can't compare total household incomes as a whole, irrespective of how many people actually live on that income. If we did, we would assume that the needs of households are the same, irrespective of the number and characteristics of the people who constitute it. Or we would assume that people are strongly altruistic, so that total household expenditure is the measure of individual welfare. This seems an unrealistic assumption. This leads us to the second problem: how should individuals be treated within a family? Do they share what they have? And how? In the following section I will discuss the assumptions and choices which form the basis of the analysis, choices, which may be often implicit.

Equivalisation

Comparison of households with different size is based on an adjustment procedure, called equivalisation. This means that different households are assumed to have different needs, and therefore we need to adjust for differences in household composition, using an equivalence scale. Since there is no single universal measure for differences in needs, the use of a specific equivalence scale is a matter of choice. A major issue is how differences in household characteristics (such as the age, health and location of members) are reflected.

Another concern of is how big 'economies of scale' are implied by the equivalisation measure, how much it is more 'efficient' to be a bigger household. One extreme for this answer would be that there is no difference. Running a household may involve only fixed costs, such as housing costs, and irrespective of how many people do actually live together, it would cost all the same. We could also say that the household consumes only public goods, which can be used at no additional costs by all members. The other extreme would say that household size matters enormously, each additional person, including a child, contributes to the same extent to total costs. Thus, there are only variable costs. In other words, the household consumes only pure private goods. Neither of these extremes seems to be grounded in reality. A widespread application, used most frequently in Hungarian official statistics, especially before the 1990s is the *per capita* household income. [Using official statistical sources, this concept of income is used by Atkinson and Micklewright as well (1992).] This measure acknowledges the

existence of economies of scale. Most notably, however, it does not differentiate between the needs of adults and children within the household.

The first 'equivalence scales' were based on estimates of need. In one of the first studies of poverty, Rowntree estimated dietary needs plus 'minimum necessary expenditure' on rent, clothing and household items (1902). The problem of such expert judgment is well known in the poverty literature, namely that it is based on subjective judgement of the researcher (Piachaud 1987). It is rather difficult to justify the inclusion of certain items and the exclusion of others. The alternative approach uses objective standards, observed behaviour as a basis of comparison. This latter approach, called 'Rothbarth method'

'supposes that we can find a commodity, such as beer or adult clothing, which is consumed only by adults and can be taken as an index of the adult standard of living. If we then compare households with and without children, we shall expect that at any give income level, the consumption will be higher for the household with not children, since the adult standard of living is higher' (Atkinson 1983, p.51).

The problem with this latter approach is that the choice of the 'adult good' may still lack adequate justification. It assumes a universal measure of 'welfare', and does not account for differences in tastes⁷¹. Interestingly, the official poverty standards in Hungary and in the United States similarly use both expert judgement, estimated requirements, and objective standards, observed differences between actual consumption patterns of households with different sizes⁷².

⁷¹ For a detailed critique of equivalence scales, including Rothbarth's method, and considering poor countries, see (Deaton and Muellbauer 1986; Deaton 1997).

⁷² The calculation of the so called '*subsistence minimum*' in Hungary is done in two steps (KSH 1999a). First, a minimum food expenditure is calculated. For this, a food basket consisting of about 100 items (defined as 'dietary minimum') is priced and added up. Differences in dietary needs are also accounted for: for example the 'prescribed minimum standard' for children between 10 and 14 years is 77.8% of the adults. The dietary minimum for a household with two adults and two children below 14 is thus the sum of the four calculated 'minimum sums' for two adults and two children. Following this, as the second stage they select a sample of households (with varying composition) whose food consumption is about the same as the previously calculated minimum amount (for households with similar composition). The monthly average of the total personal expenditure of these households is then defined as the '*subsistence minimum*'.

A formal specification of equivalence scales as proposed by Buhmann et al. seems to capture well the general structure of these scales (1988):

$$M_s = s^\theta$$

where s is the number of persons per household ($s=1, \dots, n$), θ is the scale relativity parameter ($\theta > 0$), and M_s is increasing in s and in θ . This means that larger households are assumed to have greater needs than smaller ones, and the larger the θ , the greater the allowance for needs – relative to that of a single-person household.

The most favourable characteristics of this formula is that as Coulter et al. note ‘this scale provides a good approximation to virtually all the different scales currently used in empirical studies of income distributions in developed countries – including several scales that are based on other household characteristics in addition to size’ (1992). As they note, researchers tend to choose scale relativities (θ) in the range between 0.2 and 0.8. The official statistics⁷³ in Britain can be summarised as $\theta = 0.6$. The previously mentioned income per capita equivalence scale uses $\theta = 1$.

There is no consensus in the literature on what the most appropriate equivalence scale is. Further to this, as empirical studies show, the results measuring income inequality are often highly sensitive to the equivalence scale used (e.g. Coulter et al. 1992; Jenkins and Cowell 1994). This, however, mostly refers to the actual level of inequality. Country rankings and trends of inequality within a single country do not seem to be affected by the choice of the equivalence scale (Gottschalk and Smeeding 2000). What follows from all this? As Coulter et al. suggest various possible strategies. One of these is to check the sensitivity of the results, calculating measures using a wide range of equivalence scale relativities. Another solution ‘involves decomposing overall distributional comparisons into a series of sub-comparisons of the distributions for each household type considered separately. Comparisons of corresponding within-group inequality terms are independent of the choice of equivalence scale, and so robust conclusions can be derived (Coulter et al. 1992)’. In the current analysis I will use an equivalence scale with $\theta=0.73$. This is an approximation of the so-called OECD

⁷³ Refers to publications of the Central Statistical Office and the Department of Social Security.

scale and is widely used in the Hungarian literature. A similar scale is used by the US Bureau of Labor Statistics and has been also used in a various European comparative studies (for references, see Buhmann et al. 1988, pp. 120-21). I will then check the robustness of the findings to a series of adjustment for household size by applying a set of equivalence scales.

Assumptions on sharing

The analysis of income distribution involves a fundamental, although often implicit assumption, not mentioned so far: this is the assumption relating to sharing within the household. The traditional economic approach assumes that household decisions are based on 'unitary' preferences (Becker 1981). This implies the all income is pooled and then allocated to maximise a single objective function. From this it follows that household demand, spending decisions, are independent of which family member receives the income. This has been challenged by recent evidence and an emerging theoretical economic literature, the economics of marriage (Lundberg and Pollak 1994; 1996; Lundberg, Pollak and Wales 1997). As Shelly Lundberg and her co-authors demonstrated, changes in benefit eligibility criteria in the United Kingdom, which transferred a substantial child tax allowance to wives in the late 1970s, resulted substantial changes in the spending pattern of households (1997). This empirical paper thus uses a 'natural experiment'⁷⁴ and shows that the original ownership of income plays a major role in spending decisions. Targeting of incomes is a meaningful policy instrument. Households do not have common preferences. Sharing is not really equal. Instead, household consumption decisions are rather like a 'cooperative bargain'.

⁷⁴ This natural experiment thus solves the problem of *endogeneity* of income. This problem arises, for example, at the analysis based on labour earnings of husbands and wives. As Lundberg argues, earnings are clearly endogenous with respect to the household's allocation decisions. 'In a cross-section, differential effects of husband's earnings and wife's earnings on consumption patterns are consistent with the common preference framework, because households with different ratios of husband's earnings to wife's earnings are likely to face different prices and have different preferences, even with the total household income held constant (Lundberg et al. 1997, p. 465)'. As an example she challenges that the finding showing that expenditure on restaurant meals is more elastic with respect to the wife's earnings than the husband's earnings could be a proof of bargaining theory. Instead, she argues, it could as well be explained by the 'common preference' model. As the wage of the wife is higher, the cost of the home-prepared meals becomes higher, too. Since the decision to eat out depends on the cost of substitutes, the couple may simply rationally choose the restaurant.

A further choice refers to the income-sharing unit. Should we consider the family or the household? The latter includes all persons in a common residence, while the former only those who are related by blood or marriage. Family members most likely share their resources, while for example co-habiting college students probably do not. A major advantage of the use of household as a unit, which is the choice of the Hungarian survey, is that it includes cohabiting couples as well.

Despite the apparently convincing arguments that the approach is not ideal, demonstrated above, the underlying assumption of the current analysis will be that incomes are shared equally within the household. The main reason for this is that there are no data to justify any alternative, while assuming no sharing would be unrealistic. (The spending patterns of households would not provide guidance either, because of the nature of the data, being cross-sectional, we would face the previously mentioned problems of 'endogeneity' of incomes to household's allocation decisions; see footnote 11.) Moreover, the primary focus is the distribution of resources across population groups. The economics of marriage, including the work of Lundberg, however, makes it necessary to treat conclusions relating to differences between household members rather cautiously.

Inadequacies of coverage: non-household population

National surveys normally exclude the non-household population, including the homeless, people living in institutions such as residential care, or prison and those staying with the armed forces. Their number in the UK is estimated to be between 1.7% and 2.1 % of the total population (Evans 1995, p. 18). Official statistical data show that there were 67,000 people in residential care in Hungary in 1997, including the elderly, the handicapped, addicts and the homeless. Armed forces consisted of 61,000 in the same year, including officers and conscripts, plus 22,000 border guards. Prisons and other law enforcement institutions housed 13,000 individuals. Based on these figures, the non-household population can be estimated to be roughly around 1.6% of the total population in the late 1990s. In the early 1990s this number was approximately around 1.8%. A major reason for the decline is the fall in the number of armed forces, especially that of conscripts, due to the shortening of the period of compulsory military service. Beyond these figures, however, there is a significant homeless

population, which is not registered in any institution. The phenomenon of rough sleeping is relatively recent in Hungary, marking a negative consequence of the societal changes. Most of these population groups are expected to have low incomes, thus official surveys cannot capture the bottom of the distribution adequately. Thus, analysis of household data are likely to underestimate the extent of poverty and inequality. It may also leave certain aspects of the transition in Hungary inadequately covered. This is not a unique inadequacy of the Hungarian data, however. National samples of the LIS generally exclude the institutionalised population as well (Gottschalk and Smeeding 2000, p. 274).

3.3 DATA

The income variable used in the analysis is the end result of an aggregation procedure, including imputation of missing values. The details of these calculations and its methodology are explained in detail in Appendix D. The notion of income used in the analysis is disposable household income, which is, as explained before, income after direct taxes and transfers. It also includes estimated incomes from agricultural production and certain types of illegal income, such as tips or gratuities. Certain underreporting, however, is still very likely. There is no correction for housing costs, in-kind benefits or indirect taxes. I assume equal sharing of resources within the household and adjust for economies of scale within the household by using an equivalence scale of $\theta=0.73$. The surveys, similar to most other nations, exclude the so-called institutionalised population. The period of the analysis is one year. Annual incomes are surveyed at one point in time, asking a recall of incomes in the past year⁷⁵.

The analysis uses two nationally representative household surveys, from an early and a later point in the transition process. The first survey investigates the period between April 1991 and March 1992. The later survey refers to the period between April 1997 and March 1998. The samples included 7265 and 5293 observations of individuals, and 2668 and 2011 households,

respectively (for more details, see Appendix A). The unit of analysis in this chapter will be the *household*, because as explained before the household income seems to be the best approximation of individual's consumption opportunities. In later chapters, the focus will be on more direct measures of individual's well-being and the unit of analysis will be the individual (for a description of the variables used in the thesis, see Appendix B).

3.4 RISING INEQUALITY DURING TRANSITION

Inequality of income rose between 1991 and 1998. This rising trend is prevalent according to all major measures of inequality. At the same time there was a major decline in the average real income during the same period. The datasets being used indicate a fall of no less than 30% between these two points in time. Therefore, for the assessment of the impact of transition a detailed analysis is also essential, comparing the changing position of specific population groups. This approach will be used in the later part of this chapter, when applying multivariate techniques.

⁷⁵ The survey date is close to the annual tax report deadline, which aims to ensure that people can recall accurately their past incomes. The surveys investigate incomes with specifying a particular month of the year (March), thus the specific survey date itself does not influence the responses.

Table 3.3 Summary measures of inequality, various definitions of the population

		Total population		Population over 17 years of age		Working age population	
		1991/92	1997/98	1991/92	1997/98	1991/92	1997/98
Household distribution	Mean (thousand forints)	153.8	369.1	153.8	369.1	165.9	390.8
	Median (thousand forints)	131.0	318.3	131.0	318.3	147.3	334.7
	Percentages of the median:						
	p10	0.62	0.56	0.62	0.56	0.58	0.51
	p25	0.77	0.76	0.77	0.76	0.75	0.72
	p75	1.37	1.37	1.37	1.37	1.32	1.41
	p90	1.91	1.82	1.91	1.82	1.80	1.89
	Decile ratio (p90/p10)	3.11	3.23	3.11	3.23	3.11	3.70
	MLD ⁷⁶	0.122	0.145	0.122	0.145	0.121	0.171
	Theil index	0.135	0.157	0.135	0.157	0.128	0.179
	Atkinson (e=0.5)	0.062	0.072	0.062	0.072	0.060	0.083
	Atkinson (e=1)	0.115	0.135	0.115	0.135	0.114	0.157
Gini	0.270	0.285	0.270	0.285	0.266	0.310	
Individual distribution	Mean	157.4	364.9	161.2	376.4	169.4	386.6
	Median	137.3	322.0	139.5	332.3	148.7	337.9
	Percentages of the median:						
	p10	0.59	0.52	0.6	0.54	0.58	0.52
	p25	0.77	0.75	0.76	0.75	0.76	0.73
	p75	1.34	1.37	1.35	1.36	1.34	1.40
	p90	1.86	1.80	1.87	1.80	1.81	1.86
	Decile ratio (p90/p10)	3.16	3.44	3.10	3.30	3.1	3.60
	MLD	0.122	0.142	0.121	0.138	0.122	0.154
	Theil index	0.131	0.148	0.131	0.143	0.128	0.158
	Atkinson (e=0.5)	0.061	0.069	0.060	0.067	0.060	0.074
	Atkinson (e=1)	0.115	0.133	0.114	0.129	0.114	0.143
Gini	0.266	0.282	0.267	0.278	0.266	0.294	
Individual distribution, proxies excluded	Mean			161.0	370.8	169.6	381.6
	Median			139.3	325.5	149.5	334.3
	Percentages of the median:						
	p10			0.61	0.55	0.58	0.51
	p25			0.76	0.75	0.76	0.72
	p75			1.35	1.36	1.34	1.39
	p90			1.87	1.78	1.78	1.84
	Decile ratio (p90/p10)			3.08	3.26	3.09	3.60
	MLD			0.120	0.137	0.120	0.154
	Theil index			0.131	0.143	0.127	0.159
	Atkinson (e=0.5)			0.060	0.066	0.059	0.074
	Atkinson (e=1)			0.113	0.128	0.113	0.143
Gini			0.266	0.277	0.264	0.294	

Note: Definition of income: disposable equalised household income, current prices, $\theta=0.73$

Why is it necessary to present various measures of inequality, instead of a single one, which is widely used, e.g. the Gini coefficient? As Atkinson emphasises, each summary measure of inequality has (mostly an implicit) assumption about the form of the social welfare function (1970). These assumptions greatly influence the level of inequality measured by an indicator and also the ranking of income distributions. The conventional Gini coefficient, for example attaches more weight to transfers affecting middle income groups (most specifically those at the mode). Atkinson, critically, notes that 'it is not clear that such a weighting would necessarily accord with social values' (1970, p. 256). The Atkinson class of indexes, and the presented Theil index and the mean logarithmic deviation (MLD), both of which belong to the so-called single parameter Generalized Entropy Class (GE), differ in their sensitivities to income differences in different parts of the distribution. The more positive ϵ , the 'inequality aversion parameter', is in the Atkinson index (A), the more weight is attached to transfers at the lower end of the distribution and less weight to transfers at the top⁷⁷. Comparing the Theil index and the MLD, the latter is more sensitive to income differences at the top of the distribution (Coulter et al. 1992).

All these measures show a rise in inequality. Thus neither of the presented choices about the social welfare function, the sensitivity of the measure to specific parts of the income distribution, alters the finding that there has been an increase in inequality in Hungary during the 1990s. The measure, which attaches greater weight to the bottom of the distribution, A(1) compared to A(0.5), shows a larger increase (see Table 3.3). This is in line with the finding that the relative income of the poor (the 10th percentile) fell. The MLD index shows a greater increase in inequality over time than the Theil, a top-sensitive measure. This suggests that the rise in inequality over time was not primarily driven by the top end of the distribution. Note that the p90/p50 ratio seems to contradict other measures at times: it decreases when

⁷⁶ Both the mean logarithmic deviation (MLD) and the Theil index are members of the single parameter Generalized Entropy Class, GE(a). In case of the MLD, a parameter equals 0, for the Theil index, it is 1. The Theil is a 'top-sensitive' measure, while MLD is neither 'top-sensitive' nor 'bottom-sensitive'. For more, see e.g. Coulter et al. (1992).

⁷⁷ This reference to 'transfers' relates to the so-called Dalton principle of transfers. According to this, if there is a positive transfer from a richer person to a poorer one, than this should lead to a reduction in the index of inequality (other things remaining unchanged) (Dalton 1920, p.351). Atkinson notes that some popular measures, such as the relative mean deviation, supported by e.g. Éltető and Frigyes, is not sensitive to transfers on the same side of the mean, thus does not meet this principle (Atkinson 1970, p. 256).

measured among the total population or the adult population (but not among the working-age population). This, however, seems to be a statistical artefact. If a different equivalence scale, $e=0.5$ used, there is a rise from 183% to 186% (see the following paragraph on international comparison and footnote 19 on a possible explanation).

In an international comparison, Hungary had already greater inequality in 1992 than many European countries, including Sweden, Belgium, Austria and Germany (Gottschalk and Smeeding 1997, p. 661; 2000, p. 279). (For the Hungarian figures see Table 3.4 below)⁷⁸. The extent of the rise by 1998 did not substantially change the ranking of the country: the level of inequality in Hungary still remained below that of in the United Kingdom or in Spain. An interesting feature of the Hungarian distribution of incomes in 1992 is the comparatively high income share of low income individuals. Comparing the income of the tenth percentile as a proportion of the median, Hungary, with its figure of 56.4%⁷⁹, approaches Sweden, where this ratio was 57%. This ratio has declined to 53.0% by 1998, falling behind the Nordic countries and Italy, but was still higher than in Germany, Spain, France or the UK. It implies that the bottom end of the income distribution was comparatively well-off at the early phase of transition. By the late 1990s the Hungarian poor were still not very poor, in relative terms. The rich, however, seem to be well-off compared to other nations. The level of the 90th percentile as percent of the median, 183% in 1992 and 186% in 1998 is high in European standards⁸⁰.

⁷⁸ The measures of inequality used in this comparison are the decile ratio and the Gini coefficient. The computations of Gottschalk and Smeeding are based on the Luxemburg Income Study. Both these and my own calculations for Hungary are based on disposable income per equivalent adult and use individual distributions. Since the scale relativity parameter used in the comparative study is $\theta=0.5$, and it is quite likely based on existing evidence that the choice of a different ϵ would affect the ranking of countries (Buhmann et al. 1988), I have also used $\theta=0.5$ for computing the comparable the Hungarian summary measure of inequality.

⁷⁹ The following calculations for Hungary present individual distribution for the sample representing the total population, with $\theta=0.5$. This ensures comparability with the published LIS results.

⁸⁰ We have to be aware, however, that this measure does not consider the top incomes of the countries. These are most likely show large variation, but are difficult to measure in survey data. It is also noteworthy that the relative income of the 90th percentile (p_{90}/p_{50}) increases between 1992 and 1998 when $\theta=0.5$, but declines when $\theta=0.73$. The reason is probably the variation in household sizes: the correlation between the percentile rank and household size is very small and varies in sign, for the two years and for the various sensitivity parameters. (E.g. a peculiarity is that average household size for p_{90} increases between the two years for $\theta=0.5$, but declines for $\theta=0.73$.)

In comparison with most East-European countries, the rise of inequality in Hungary was moderate. According to Milanovic, the rise in inequality during the early phase of transition, measured with the Gini coefficient, was very high in Russia, followed by Latvia and Bulgaria, then by Poland (1998, Table 4.2). Slovenia and Hungary had the smallest increase among these nations. The level of inequality in Hungary is significantly below that of most states of the CIS, including Russia and Ukraine (Table 4.1). Central European countries have a similar extent of income inequality. Calculations using LIS data from the early 1990s indicate that inequality in Slovakia and the Czech Republic were less than in Hungary (Förster et al. 1998). The ranking of Poland and Hungary is not clear, different authors using varying data come to contradictory conclusions (Andorka et al. 1997).

How sensitive are the measures of inequality in Hungary? Table 3.3 presents various different measures of inequality, using different methodologies or samples. Inequality has risen among the working age population to a greater extent than in the total population. This is probably related to rising inequality of earnings, reported elsewhere (e.g. Redmond and Kattuman 2001; Tóth 2001). One methodological choice presented in Table 3.3 is the use of household and individual distribution. For most indicators, the household distribution shows a higher inequality to some extent. The difference, however, is not major. For the purposes of this work, the individual distribution will get priority, since we are ultimately concerned with the well-being of individuals. In the specific analysis in later sections I will use a narrowed sample, including only those individuals who responded to a detailed questionnaire, so that a detailed information is available about them. Consequently both children (17 years and below) and those of whom only a so-called proxy have been completed, have been excluded from the sample (see Appendix A on basic sample description). As the presented measures of inequality show, the level of inequality is very similar in the restricted sample and in the total sample of the adult population (using individual distribution in both cases).

Table 3.4 Inequality and the choice of equivalence scale, sensitivity analysis

	1992				1998			
	$\theta=0.25$	$\theta=0.5$	$\theta=0.73$	$\theta=1$	$\theta=0.25$	$\theta=0.5$	$\theta=0.73$	$\theta=1$
Mean (thousand forints)	281.4	206.9	157.4	115.8	639.9	474.8	364.9	272.0
Median (thousand forints)	248.6	181.2	137.3	100.4	558.5	417.2	322.0	240.0
Decile ratio (p90/p10)	3.71	3.25	3.16	3.09	3.83	3.51	3.44	3.49
MLD	0.147	0.128	0.122	0.127	0.156	0.143	0.142	0.156
Theil index	0.150	0.136	0.131	0.136	0.157	0.147	0.148	0.162
Atkinson ($\epsilon=0.5$)	0.071	0.063	0.061	0.063	0.075	0.069	0.069	0.075
Atkinson ($\epsilon=1$)	0.137	0.121	0.115	0.119	0.145	0.133	0.133	0.145
Gini	0.293	0.275	0.266	0.269	0.299	0.285	0.282	0.293

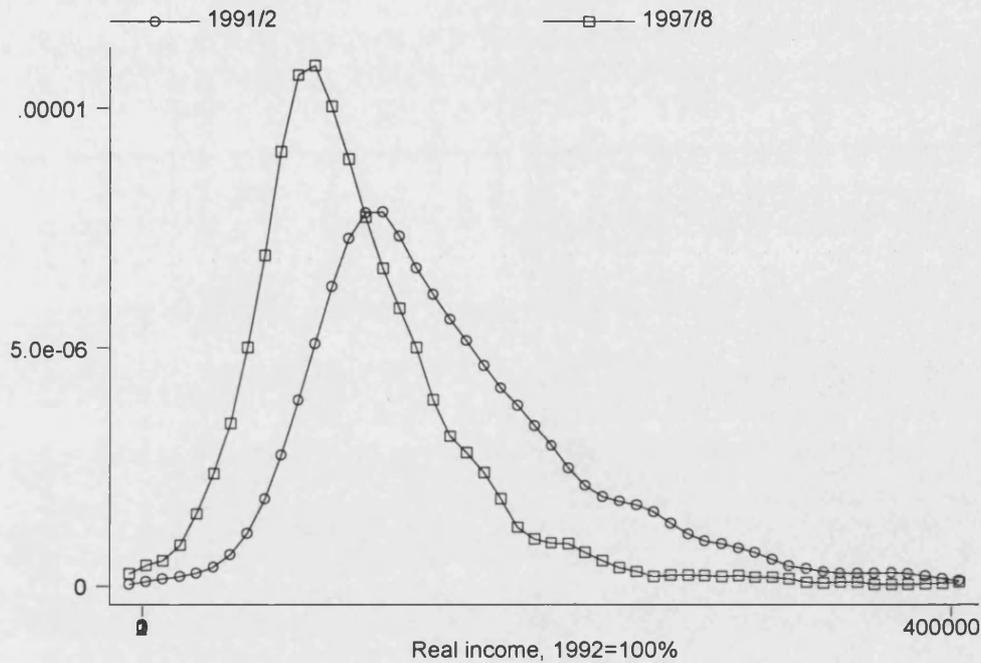
Note: individual distribution of income, total sample

As Table 3.4 shows, the *level of inequality* significantly differs depending on the equivalence scale used, in other words, on the assumption referring to the economies of scale within a household. As the scale relativity parameter, θ , rises, inequality falls then rises in case of various measures, showing a U-shaped pattern. Why is it so? As Coulter et al. describe, the impact on inequality of changes in θ is not obvious, because the General Entropy Class measures (all of the presented measures are such) are 'functions of ratios of group mean equivalent incomes to the overall average, and increasing θ decreases both the numerator and the denominator of the ratios' (1992). These effects for specific measures of inequality and their causes are extensively discussed in the literature (Coulter et al. 1992; Jenkins and Cowell 1994). For the purposes of this analysis, the main conclusion is that the *rise in inequality* remains robust for various equivalence scales.

The findings presented are similar to the calculations based on the same sample. Tóth, also using the Household Panel Survey and the Household Monitor, using per capita income measure, finds that the Gini has risen from 0.263 to 0.276 in the same period (2001 and personal communication). My figures indicate a rise from 0.269 to 0.293, when using the same equivalence scale ($\theta=1$). The decile ratios also show a more modest rise according to Tóth, from 3.14 to 3.27, compared to my figures presented in Table 3.4, 3.09 and 3.49. The reason for the divergence is most likely that I have used imputed income data for both years, based on my own imputation for 1992, following the survey institution's prescribed method for 1998, mean substitution (see Appendix D for a detailed description). The 1998 data of Tóth,

however, seem to be 'outliers' in a negative direction in the general trend of inequality, and are significantly lower than both 1997 and 1999 figures. Overall, my calculations presented above fit well the trend described by others.

Figure 3.3 Income inequality, Kernel density estimates

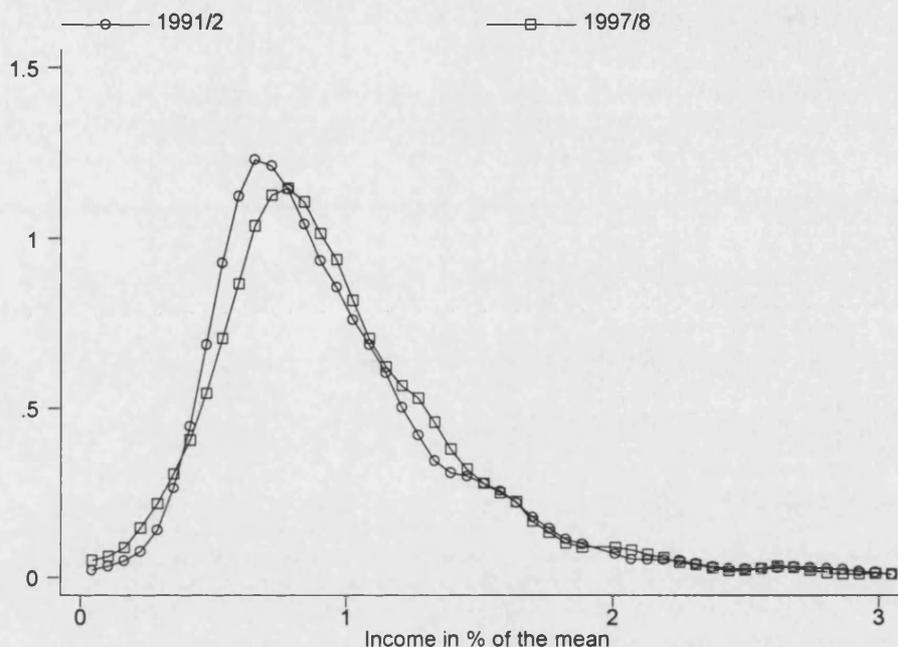


Note: 'restricted sample', excluding children and proxies (see explanation before)

Kernel density estimates provide a visual presentation of the change in the income distribution. There was a major shift to the left, indicating that both the median and the modal income declined in real terms (Figure 3.3). The reason for this fall is that the number of people whose real income fell was greater than the number of those whose income rose. The second figure displays the distributions relative to the mean income of the actual year, thus highlights the relative change in the income situation (Figure 3.4). This shows that the distribution became more widely spread, thus both the number of people with very low incomes and the number of those with incomes somewhat above the mean increased. Notably, the situation of the high income groups did not seem to have changed. This, however, only means no change according to this survey data. Overall, the main finding of the density estimates is that the situation of the bottom income groups has deteriorated both in absolute and relative terms.

The overall majority of the population has suffered income loss in absolute terms between 1992 and 1998, but a significant proportion could improve their relative position.

Figure 3.4 Income inequality, standardised by the mean, Kernel density estimates



Note: 'restricted sample', excluding children and proxies (see explanation before)

The 1990s saw a rise in inequality in Hungary, as both my results and the existing literature shows. The extent of this rise, however, appears to be rather moderate. At the same time, real incomes have dropped significantly for the majority of the population. What are the dynamic features of these processes? Income mobility research for Hungary, using panel data, shows that a relatively high share of the poor stayed poor over the transition. Habich and Spéder find that 46% of those individuals who had income less than half of the mean in 1992 remained in the same group by 1996 (2000, Table 2)⁸¹. Mobility was similar at the top: 44% of those who had more than 150% of the mean income retained their relative income position over time. Comparing these figures with West-German mobility patterns between 1990 and 1994, it seems that Hungarian mobility was higher, as expected for a transforming society (2000, Table

⁸¹ The authors use equivalised household income, with an equivalence scale of 0.73.

2). The upward mobility of the poor, however, was only slightly better in Hungary, while the downward mobility of the rich was significantly larger than in West-Germany.

The mobility research also shows that a significant proportion of the middle income categories have slid down (2000, Table 2). Looking at lower middle category, the income group which had 75-100% of the mean income, 39% retained their position, 38% slid down, and only 23% improved it. The volatility in the upper middle group was greater. Out of those, who had incomes between 100 and 125% of the mean in 1992, only 24% remained in the same income group by 1996. 47% experienced a downward shift, and only 30% an upward one. A significant downward mobility, especially from more advantaged income groups, is a normal and expected phenomenon in open societies, as the West-German data also shows. What is striking in Hungary, however, is the relatively high share of those who slid down to a large extent. For example, 10% of the lower middle income groups have become relatively poor (having less than 50% of the mean) over the period examined. These results add a very useful dimension to the previously presented results. They, however, do not answer how much individual characteristics explain income mobility and income position. I do not aim for examining the determinants of mobility here, which moreover would not be possible due to the lack of panel data for 1992-1998. My concern instead is the relationship between income position and personal characteristics.

3.5 INCOME AND HOUSEHOLD CHARACTERISTICS

The distribution of incomes among specific social groups is a major characteristic of a society. It involves issues such as how much the market values certain characteristics, for example the human capital and work effort, and how much role the state assumes in redirecting the original distribution of incomes. In other words, to what extent the principle of distribution is based on merit, or on need. Not much fortune-telling skill would have been necessary to predict in the early 1990s that the economic transition would change the determinants of income, the relationship between personal characteristics and income. Two separate issues worth considering in this respect. The first is a static inquiry, looking at which are the most important

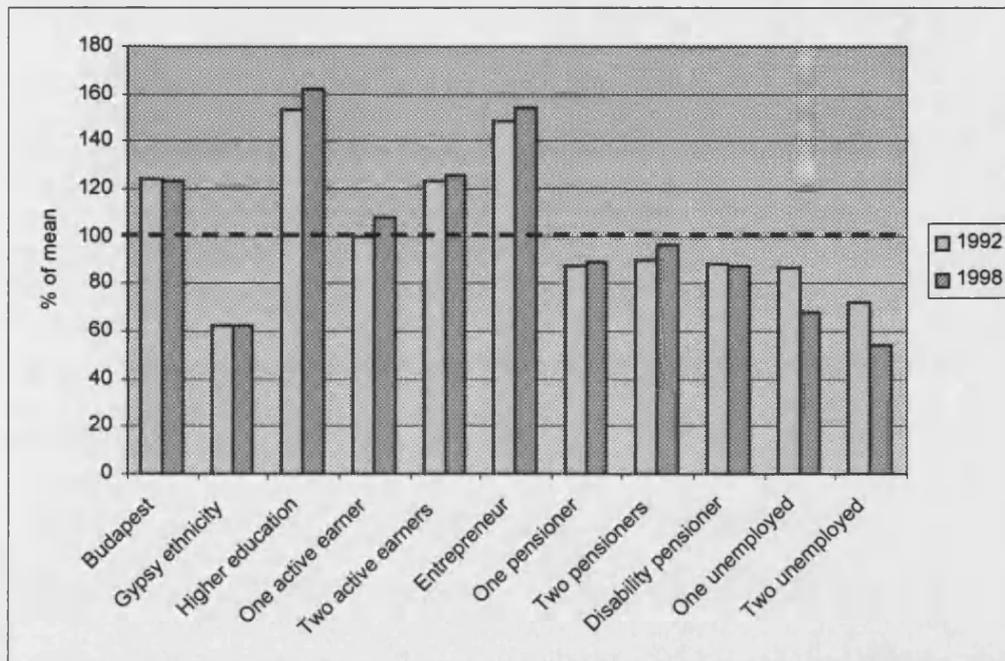
determinants of income at one point in time. This way, we can understand what attributes are likely to make someone rich or poor. The second aspect of the investigation has a dynamic property, assessing the impact of transition. Have the characteristics, which made someone rich changed over time? What attributes contributed to increasing consumption opportunities and what are the ones, which were factors in being left behind?

First, the relationship between household characteristics and income will be examined at both 1992 and 1998, providing two snapshot analyses, including a date in the beginning and another towards the end of the transition. As explained earlier, household income will be used, since I assume that this comes closer to the actual level of quality of life than other notions of income. It then follows that both the analysis will search for a relationship between *household* income and *household* characteristics.

Income position is greatly influenced by demographic factors, human capital and the labour market position of the household members. As Figure 3.5 shows, those who live in Budapest, where the head of household has higher education and there is an entrepreneur among the household members, enjoy relative financial advantage. Households of Gypsy ethnicity or with unemployed members are clearly worse off than the average. Note that pensioner households⁸² on average do not have significantly less total income than the mean. As mentioned before, pensions preserved their real value better than other social benefits and there was no backlog in the transfer of monthly payments. This relatively good position of pensioners is a feature of the Hungarian situation, rather distinct e.g. from most countries of the former Soviet Union. Households with a disability pensioner seem to do better than those which have unemployed members, thus those who exited the labour market in the former way seem to do relatively better than the unemployed.

⁸² 'Pensioners' refers to old-age pensioners, thus excludes disability pensioners..

Figure 3.5 Income of specific household types relative to the mean (equivalised household income, $e=0.73$)



Note: the characteristics refer to either the head of household (Budapest, Gypsy ethnicity, higher education) or the household as a whole (labour market status, e.g. the household has a member who is entrepreneur)

During the years of transition the polarisation between social groups appears to be primarily based on differences in labour market position and human capital. Households with entrepreneurs or a head with higher education managed to enlarge their relative advantage of 1992. The unemployed, however, seem to increasingly lag behind. Interestingly, two-pensioner households have managed to improve their relative income position by 1998.

Entrepreneurs, who may particularly benefit from the increased freedom of a market economy, deserve special attention. As mentioned in the previous chapter the group of entrepreneurs is rather heterogeneous, consisting partly of successful entrepreneurs, with advantageous class position, education background and economic sector, partly of many others, who lost their jobs were 'pushed' into self-employment (Róbert and Bukodi 2001). Some others became self-employed for purely tax evasion, but in reality still worked as employees. Since the general household surveys used here are not as specific as labour force surveys are, detailed analysis of subgroups of entrepreneurs is not possible. Instead, entrepreneurs can be divided into two groups, one, where they work with no employees and

to another, where there are one or more employees. This appears to be a simple but useful way of separating those entrepreneurs who were less driven by the entrepreneurial spirit and opportunities but by necessities and the lack of opportunities elsewhere. Entrepreneurs with no employees had income over on third higher than the overall mean. In contrast, entrepreneurs with employees had about twice as much in both years.

These regularities, however, do not account for correlations between personal characteristics. Persons with higher education levels for example tend to be entrepreneurs more frequently. Entrepreneurs with tertiary education are more likely to have employees. Gypsy ethnicity is positively associated with low levels of education, and also with unemployment. Higher proportion of women have low education than men, but once age is controlled for, it becomes clear that it is not so among the younger generations. What is the net effect of certain personal characteristics on income? The answer to this calls for a multivariate model.

The specification of the model is very similar to the ones used in the literature (Redmond and Kattuman 2001; Tóth 2001).

$$\text{INCOME}_i = f(\text{DEMOGRAPHIC CHARACTERISTICS}_i, \text{HUMAN CAPITAL}_i, \text{EMPLOYMENT}_i),$$

where demographic characteristics include for example the sex, the age, the ethnicity and the marital status of the head of household, human capital includes the education level of both the head of household and his or her spouse, and employment includes variables indicating the labour market participation of members of the household, e.g. the number of active earners. The unit of the analysis (i) is the household. The dependent variable is the natural logarithm of income, accounting for the non-linear relationship between income and its determinants.

Income is strongly and positively associated with the number of active earners in the household and the education level of the head of household (see Table 3.5). Other factors, such as living in the capital, the education level of the spouse of head, and the number of pensioners in the household, are also significant at 1% level and enter positively. In contrast, other household characteristics such as when the household is headed by a female or there are small children in it are associated with lower income levels. Surprisingly, unemployment is a

significant variable only in 1992, with the expected negative sign. Interestingly, Gypsy ethnicity is significant only in 1992, with a negative coefficient. Also in 1992 we can observe a curvilinear relationship between age and income, controlled for other characteristics. The maximum household income is on average at the age of 48 of the head of household. The separation of the disability pensioners from old-age pensioners seems justified on the basis of the results. While pensioner households tend to have more income compared to households with no pensioners, the presence of a disability pensioner in the household has no (1992) or just a minor (1998) such influence. Most likely, the employment position of the other household members plays a crucial role.

There are signs of regional disparity as well, although it seems to decline over time. In 1992 those households which resided in the capital were significantly better off than others. By 1998, the gap seems to have widened primarily between urban and rural areas. All the coefficients of the 'urban' variables are significant and positive, indicating higher income there than in the reference category of villages and small towns. The inhabitants of Budapest, however, seem to be still the most prosperous, even after controlling for labour market situation and educational level of household members.

Table 3.5 Determinants of income among households, OLS regression

<i>Dependent variable: natural logarithm of equivalised household income, $\epsilon=0.73$</i>	1992			1998		
	<i>Coef.</i>	<i>Std. Err.</i>	<i>Beta</i>	<i>Coef.</i>	<i>Std. Err.</i>	<i>Beta</i>
<i>Demographic characteristics</i>						
<i>Settlement type:</i>						
Town	-0.0480***	0.0180	-0.0455	0.0437*	0.0259	0.0351
County centre	-0.0229	0.0227	-0.0170	0.0559*	0.0290	0.0401
Budapest	0.1031***	0.0211	0.0870	0.0753***	0.0292	0.0561
Sex of head of household (female=1)	-0.1150***	0.0211	-0.1092	-0.0528*	0.0310	-0.0434
Age of head of household	0.0130***	0.0031	0.4400	0.0024	0.0040	0.0725
Age square of head of household	-0.0001***	0.0000	-0.4860	0.0000	0.0000	0.0040
<i>Age of smallest child:</i>						
3 yrs or less	-0.3591***	0.0293	-0.2270	-0.2643***	0.0434	-0.1300
4-9 yrs	-0.2297***	0.0262	-0.1569	-0.2467***	0.0364	-0.1418
10-16 yrs	-0.2141***	0.0230	-0.1600	-0.2905***	0.0331	-0.1756
Marital status of head of household (married=1)	-0.0446**	0.0226	-0.0452	-0.1016***	0.0304	-0.0927
Ethnicity of head of household (gypsy=1)	-0.2947***	0.0433	-0.1077	-0.0846	0.0638	-0.0255
<i>Human capital</i>						
<i>Education level of head of household:</i>						
Vocational training	0.0839***	0.0196	0.0784	0.1109***	0.0270	0.0942
Secondary education	0.1877***	0.0224	0.1565	0.2141***	0.0321	0.1524
Higher education	0.3831***	0.0275	0.2685	0.4270***	0.0382	0.2696
<i>Education level of spouse of head:</i>						
Secondary education	0.0868***	0.0234	0.0661	0.0896***	0.0321	0.0593
Higher education	0.1321***	0.0336	0.0703	0.1893***	0.0468	0.0877
<i>Employment</i>						
<i>No. of active earners in the household:</i>						
1	0.2920***	0.0231	0.2701	0.3711***	0.0303	0.3105
2+	0.4995***	0.0269	0.5125	0.5695***	0.0347	0.4842
<i>No. of pensioners in the household:</i>						
1	0.0386*	0.0219	0.0373	0.1147***	0.0283	0.1006
2+	0.1481***	0.0304	0.1066	0.2716***	0.0394	0.1782
Disability pensioner in the household	0.0035	0.0241	0.0023	0.0534*	0.0302	0.0353
<i>No. of unemployed in the household:</i>						
1	-0.0238	0.0291	-0.0129	-0.2217***	0.0402	-0.1048
2+	0.0856	0.0747	0.0175	-0.2681**	0.1268	-0.0388
Constant	11.2726	0.0816		12.1729	0.1114	
Adj R ²	0.4164			0.3495		
F ratio	83.22			47.45		
Observations	2651			1989		

Notes: * denotes significance at 10% level, ** denotes significance at 5 % level, *** denotes significance at 1% level

Base categories: village or small town, male, no child under 16, elementary education or less (of head of household), education below secondary level (of spouse of head), no active earner, no pensioner, no disability pensioner, no unemployed

The relative weight of these characteristics, however, greatly varies. As the beta weights indicate, the number of active earners in the household is one of the major explanatory factors of household equivalised incomes in both years. Another important variable is higher education of the head of household, which has also positive sign as expected.

There has been a considerable change in the determinants of income. A glance at the significance levels of the explanatory variables reveals that in 1998 fewer variables depicting demographic characteristics and more variables expressing employment situation are significant than in 1992. Testing the coefficients in the two equations gives confirmation that the coefficients of the numbers of pensioners and unemployed in the household are significantly different in 1992 and 1998⁸³, thus there was a change over time. The role of demographic factors appears to decline over time, while labour market participation seems to increasingly matter. This finding is confirmed by a brief comparative analysis of the three groups of determinants of the income position, presented in Table 3.6. This shows the results of different regression models, using only one set of variables at a time. The adjusted R² values explain how much of the variance of the dependent variable, the log of income, is explained by the specific selection of explanatory variables altogether. The R² values were similar for all three set of variables in 1992. In 1998, however, the exclusive use of demographic variables could much less explain the income position (12% of the variance) than the sole use of either human capital variables (17%), or those of employment status (19%).

Table 3.6 Comparison of main determinants of income among households

	1992			1998		
Demographic characteristics	✓			✓		
Human capital		✓			✓	
Employment			✓			✓
Adj R ²	0.2299	0.2212	0.2081	0.1217	0.1711	0.1930
Observations	2651	2651	2651	1989	1989	1989

This implies that individual performance became a more powerful factor in determining someone's quality of life, while innate characteristics seem to matter less. This may sound good news. If Gypsy ethnicity or being female as head of household become less of sources of disadvantage, as the lower coefficients show, then this may imply that there is less discrimination in the society. This, however, may be a simplistic conclusion. Romany ethnicity, for example, is associated with other forms of disadvantage, such as unemployment or lower levels of education (Kertesi 1995). Also, other demographic characteristics remained important. For example the existence of a small child in the household tends to bring lower income both in 1992 and in 1998.

3.6 CONCLUSION

A substantial section of this chapter discussed measurement issues and methodological choices, primarily due to the heterogeneity of existing approaches. This discussion highlighted clearly the choices made in the current study and also pointed to further potential ways of development. A positive aspect of the measurement of income in the survey is that there are detailed income questions. The total income aggregated from these is most likely more reliable than income based on a single survey question. My contribution to the improvement of the survey quality is that I have imputed incomes both for 1992 and 1998, in order to minimise missing values and the resulting information loss. Negative aspects of the survey were the possible underreporting of incomes, mostly from the informal sector, and the exclusion of non-household population. Possible further directions of future research could include the analysis of the distributional impact of in-kind benefits, and that of differences in housing costs. The assumption of equal sharing of resources within the household could also be put to the test.

⁸³ t-test, where $H_0: x_{1992} = x_{1998}$, where x_{1992} e.g. is the coefficient of the number of active earners in the household in the regression equation for 1992 and x_{1998} is the same coefficient in the equation for 1998. The result of the test here is that we can reject the null hypothesis that the coefficients are equal with a 95% confidence level.

There has been a rising inequality between 1992 and 1998, simultaneously with a major fall in average real income. The trend of inequality was shown to be robust to the choice of the measure of inequality and also to the choice of equivalence scale. The rise in inequality may not be necessarily a problem in itself, neither for efficiency nor for equity considerations. In Hungary, however, it does seem to be problematic. The results show a large decline in the income of the bottom income decile group in absolute terms, and the extent of this fall surpassed that of other income groups. In addition to this, other research shows that the bottom income group had relatively little upward mobility during the first half of the 1990s. Does this imply an increasing disadvantage of the poor in other aspects of well-being? Is the increasing financial disadvantage a source of 'misery', in other words are the poor particularly unhappy? Although the majority of the population has experienced a loss of income in absolute terms, there is a proportion who became relatively better off compared to the average. How did these two processes altogether affect people's satisfaction with their incomes? The high volatility of incomes may have made people risk averse. Has the existence of financial safeguards, especially savings, contributed significantly to people's contentment? These issues will be discussed in the second part of the thesis, relating to subjective well-being.

Over the years of transition individuals' human capital and labour market situation has increasingly determined their level of income. Those who could 'join in', the active earners, the entrepreneurs and the highly skilled could prosper. Those who 'stayed out', particularly the unemployed experienced the deterioration of their situation. There are signs of regional disparity as well, particularly between the capital and the rest of the country. This is in line with the starting hypothesis on the increasing 'skill premiums' of the market. If there is a strengthening link between labour market performance and income, how does a person's own income generating ability contribute to his or her self-esteem? Does it make people more contented if they contribute significantly to the common household budget, or is their satisfaction primarily driven by their share of the household income, irrespective from its source? I will seek answer to these issues in chapter 5. What is the relationship between income and other measures of objective well-being? Does money buy better housing conditions for example? In an increasingly market-oriented society is there any change in the intensity or quality of social interactions? These questions are the major concerns of the next chapter.

In contrast to the increasing importance of educational attainment and labour market participation, the explanatory power of demographic factors had declined over time. The multivariate analysis also shows that controlling for labour market status, educational attainment, and a series of demographic characteristics of the household, Gypsy ethnicity of the head of household was significant and negatively correlated with income only in 1992. This may suggest that being Romany in itself may not be a source of disadvantage in financial terms in 1998 any more, only indirectly, through disadvantages in terms of human capital and labour market participation. Do other aspects of well-being support this hypothesis? The focus of the analysis on household income, and the underlying assumption of equal sharing within the household did not enable the scrutiny of the gender dimension of income inequalities. The forthcoming analysis of well-being may shed light on possible gender differences as well. One major issue is the labour market participation of women. In the previous chapter we saw that the decline in labour market participation was a major feature of economic changes in Hungary. Was this process gender neutral, or how has it affected women? These issues lead us to the next chapter.

ANNEX 3. SUMMARY STATISTICS OF INCOME VARIABLES

Table A.3.1 Major aggregate income variables, descriptive statistics

Total sample

Variable	Obs	Weight	Mean	Std. Dev.	Min	Max
1992						
Equivalised income, e=0.73	7232	5723	157,448	93,006	0	1,400,038
Equivalised income, OECD scale	7232	5723	151,848	89,043	0	1,419,109
Equivalised income, e=0.50	7232	5723	206,872	123,342	0	1,802,511
Equivalised income, e=0.25	7232	5723	281,431	174,093	0	2,372,238
1998						
Equivalised income, e=0.73	5293	5294	364,917	235,169	0	4,019,140
Equivalised income, OECD scale	5293	5294	349,230	227,685	0	4,073,886
Equivalised income, e=0.50	5293	5294	474,775	300,955	0	5,174,531
Equivalised income, e=0.25	5293	5294	639,912	411,674	0	6,810,066

Restricted sample (including only those who are 17 or over and responded to the personal questionnaire)

Variable	Obs	Weight	Mean	Std. Dev.	Min	Max
1992						
Equivalised income, e=0.73	5310	4,034	160,961	95,464	0	1,400,038
Equivalised income, OECD scale	5310	4,034	154,096	90,794	0	1,419,109
Equivalised income, e=0.50	5310	4,034	207,863	125,868	0	1,802,511
Equivalised income, e=0.25	5310	4,034	277,768	176,662	0	2,372,238
Real income, 1992= 100%	5310	4,034	154,096	90,794	0	1,419,109
1998						
Equivalised income, e=0.73	3795	5,074	371,114	237,049	0	4,019,140
Equivalised income, OECD scale	3795	5,074	354,047	229,895	0	4,073,886
Equivalised income, e=0.50	3795	5,074	473,537	300,310	0	5,174,531
Equivalised income, e=0.25	3795	5,074	625,669	408,636	0	6,810,066
Real income, 1992= 100%	3795	5,074	107,518	69,815	0	1,237,173

INEQUALITY OF WELL-BEING: NON-INCOME MEASURES

The purpose of this chapter is to describe non-income measures of well-being in Hungary and their change over the period of economic transition. The analysis will use so-called objective measures, including labour market status, housing situation and social relations. The choice of these specific measures is partly justified by their importance as measures of quality of life, partly by limitations of the dataset, primarily that of issues of comparability over time. The analysis will be of a multidimensional nature, using multiple measures of well-being rather than a single index. The unit of the analysis will be the individual, because it is people's well-being this thesis focuses on.

4.1 CHOICE OF INDICATORS

The use of non-income measures of well-being, as mentioned before, is not an unusual exercise. The theoretical justification of such measures was discussed in the first chapter of the thesis. In sum, money is not the sole and ultimate measure of well-being. The recently expanding literature on social exclusion emphasises that disadvantaged social position needs to be addressed in a multidimensional way, looking beyond the traditional measure of income poverty. Social policy at the level of the European Union also seems to move in this direction. The Nice summit in Dec 2000 discussed ways of fighting not just poverty but also social exclusion. The first step in this direction is to try to develop a common set of social indicators, which would be the basis of social monitoring and the assessment of social policies in member states countries. In this enterprise social scientists also play an active role, as the recent volume authored by Anthony Atkinson and others suggests (Atkinson et al. 2002). Given the importance of such efforts and their expected influence on Hungary as a future member of the Union, the current state of this discussion will be considered as a point of reference. In addition, existing social indicators on the performance of individual EU countries will be also used as a base for comparison.

The set of indicators recommended by Atkinson et al. aim to measure social exclusion. They focus on marginal social situations, which means that each of these is based on a specific criterion of exclusion and contains a cut-off point. The analysis here is not primarily aiming to

look at such indicators, but rather measures of well-being and their distribution among social groups as a whole. Due to the complexity of these measures, however, there will be a considerable overlap of indicators used here and those recommended by Atkinson et al. Thus, both indicators of well-being and those of 'ill-being' will be used. The choice of the specific measures from these two broad classes is based on a judgement related to which captures more accurately an attribute of living standards, which seems to identify something desirable or non-desirable from a normative point of view. There seems to be an analogy of this approach and the existing parallel terminology of 'social exclusion' and 'social inclusion', both used in the European social agenda.

The Stockholm Summit in March 2001 proposed seven indicators of social inclusion. These included measures of poverty, income inequality, unemployment and education (Atkinson et al. 2002, p. 6). Extending these dimensions of social inclusion, Atkinson and his co-authors propose additional indicators of housing quality, health and social participation (Atkinson et al. 2002, pp. 196-7). Notably, this set includes both objective and subjective indicators as well. The subjective measure used is that of self-assessed health, including those individuals who classify their health as bad or very bad.

The first set of measures used here analyse labour market participation (section 4.2). There are various reasons for this. Firstly, transition brought major structural changes to the labour market, affecting practically all the working age population. Thus the analysis of the labour market is an essential element of the assessment of the social consequences of economic transition. Secondly, participation in the labour market is an element of well-being in itself. Labour market participation is socially valued in general, due to its income generating character for the individual and due to its contribution to the production of national income. It is regarded to be one of the major means for social integration as well. Jobs tend to bring opportunities for personal contacts, and so increase a person's 'social capital', as the following analysis on social relations shows (section 4.4). But also, *job satisfaction appears to be a major element of an individual's overall life satisfaction* (see Chapter 5).

A major issue relating to labour market participation and other measures of social exclusion is that of individual agency, the distinction between individual choice and external constraints.

Social exclusion, as Barry argues, should refer to only those cases where non-participation in a society's mainstream institutions occurs for reasons beyond the control of those subject to it (Barry 2002). He points out that for example voluntary withdrawal from political participation does not constitute social injustice and should not be identified as social exclusion. Similarly, non-participation in the labour market may be the results of an individual's choice, 'self-exclusion' is possible.

Has transition brought increasing choice of the individual: choice of profession, and that of job? As Kornai, in his review of the history of Socialism in Hungary describes (1988), there were severe restrictions by the 'maximal state' in the early fifties, including mandatory posting to the first job after education, and no voluntary change of job without the consent of superiors. 'Work, in the sense of a regular job, was mandated by law, and only precisely specified exceptions permitted for reasons of health, maternity, and the like. Those who did not conform were labelled as 'parasites' and were liable for prosecution (p. 245)'. Later, and especially in the reformed state of the mid 1980s this old law obliging people to work remained in force, but it was hardly enforced. Hungarians thus already had a certain freedom of choice before transition.

Political and economic transition has brought increasing freedom, but it may not affect all equally. The legal obligation to work was formally abolished. A greater variety of entrepreneurial forms provided a more varied choice between potential employers. Also, choosing non-employment, for example staying at home as a housewife, has also become a legally accepted option. Economically it appears to be less so. The declining real value of state benefits made the choice of withdrawal from the labour market more difficult. Particularly family support has suffered greatly, which implies that the previously generous 'social wage' for women looking after small children at home possibly greatly lost its attraction. It would be rather speculative and arbitrary to make distinction between inactivity as a personal choice and involuntary inactivity⁸⁴. To get round this problem, only unemployment is examined as a form

⁸⁴ Burchardt and Le Grand use various alternative definitions in order to estimate the possible range of voluntary non-employment in the UK (Burchardt and Le Grand 2002). They find that at least one tenth of the non-employment is 'unambiguously voluntary'.

of involuntary withdrawal from the labour market. The definition of unemployment, that of the ILO, is based on the criteria that the individual is actively seeking job and is ready to start one. Unemployment is thus clearly involuntary, and will be used as a measure here.

Housing conditions are inherent parts of most analysis of social exclusion (e.g. Eurostat 2000; Atkinson et al. 2002). There are two main reasons for this. Firstly, housing quality tends to be poorly related to income. Secondly, as discussed in chapter 3, housing income is omitted from measured income here. The following analysis (in section 4.3) will focus on two main aspects of housing: ownership and housing quality. From the earlier discussion it follows that owning a home was desirable and highly valued, at least by the end of the transition process. Good housing conditions, or rather the lack of major quality shortfalls is an essential element of well-being, and the opportunity to live in such places may be regarded as a 'basic capability'.

Social interaction is valuable, both for its contribution to individual's happiness and for their integration to society. The frequently used notion of poverty, defined as the lack of participation in the life of the society in some ways, seems to inherently incorporate this aspect of individuals' functionings as well. Different measures of social participation, referring to e.g. participation in organisations, clubs, or to various forms of leisure activity with friends, are widely known measures of the recent social exclusion literature as well (e.g. Burchardt et al. 1999; Stewart 2002).

Non-income measures of well-being used in the following analysis:

- Participation in the labour market as employee or self-employed
- Non-voluntary withdrawal from the labour market in the form of unemployment
- Housing ownership: tenant status
- Housing quality problems: occurrence of problems, multiple disadvantage
- Social relations: marital status, family size, number of friends, lack of any friends, rare contact or no contact with friends or relatives

This list may appear to have major omissions, especially health, education or political participation. Why is this? Health, although it would be a relevant indicator, regrettably cannot

be examined here due to the lack of comparable data. As discussed in section 1.3, educational attainment is no doubt an essential functioning. At the same time it is not just an end in itself, but a means to achieve other valuable things in life, such as having a satisfactory job, or being able to lead a certain lifestyle. In this analysis I focus on education as a determinant of well-being, rather than an end in itself (see Figure 1.2 on the assumed relationship of various functionings and income). Political engagement was not included either. The main reason is that there is only a single measure, that of voting in the national elections, available in the surveys used here. In my view abstaining from voting might be an expression of the increased freedom in the new democracy, in contrast to Socialism, where not only the actual choice between candidates was very limited, but participation in voting was a sort of 'duty'. More fruitful measures of political engagement, such as membership of an interest group or club are not available. [Recent studies of well-being or social exclusion use these latter measures, e.g. (Burchardt et al. 2002; Stewart 2002)].

The analysis will look at main social divisions along gender, ethnic, age and educational lines. A particular focus will be on the relationship between income position and measures of well-being presented here, all of them being non-income measures. I will present these indicators for both 1992 and 1998. This will enable a static analysis of relative position of social groups at one point in time, but also changes over time. The definition of income used here will be equivalised household income, using OECD equivalence scale. Thus I assume that there is equal sharing within the household, and individual's well-being is influenced by the incomes of their household members. A similar choice is proposed by Atkinson et al as well (Atkinson et al. 2002). For a more detailed definition of all the variables, see Appendix B.

4.2 LABOUR MARKET PARTICIPATION

Labour market participation is socially valued in general, and is a frequently used measure of well-being. Labour market participation, however, may not be desirable for all. Work in low paid, low quality jobs may bear high costs for an individual, and at the same time may provide few benefits in terms of income, job satisfaction, self-realisation, and social capital. As

mentioned in chapter 2, there is a high prevalence of low-paid jobs in the country (full-time workers earning below 2/3 of full-time median earnings), reaching 22% (OECD 2001b). This is above the level of European OECD countries. Thus, the assumption that labour market participation in itself is an important capability of a person, remains on a rather general level.

A further important aspect of freedom, beyond the choice of job, is that of choice between work and leisure. There was a gradually increasing freedom in this respect as well during the Socialist era, as the opportunities for entrepreneurial activities and overtime work grew. How did people use this freedom? A phenomenon of the late Socialism, hardly known before, may be called 'exhaustion from overwork'. Limits on overtime work were lifted, and as a result many Hungarians chose to have second and third jobs in the late 1980s. Kornai says that 'According to some estimates, at least half the adult population works for more than 60 hours a week, not counting household work, and a smaller fraction of the population works even more, 80 or 100 hours a week. As a result, many Hungarians are physically exhausted from overwork. But as far as the freedom of the individual to choose between work and leisure is concerned, it has expanded enormously (1988, pp. 245, 248).'

Economic transition has also increased the freedom of choice between work and leisure. How did people actually use this freedom? Changes of the labour market have somewhat altered these patterns of overwork. Comparing Kornai's results with survey data for 1992 show somewhat lower proportions of overtime work, which may be a sign of change in this respect. In 1992 22% of the respondents said that they worked altogether 60 hours or more a week on average. 9% claimed that they worked 80 hours or more. This might suggest, if the data are comparable⁸⁵, that overwork remained a problem for many, but became less widespread by the early 90s⁸⁶. According to the economic literature, choice between work and leisure is determined by marginal earnings, and also by personal preferences. It seems plausible to assume that it was partly the increasing skills premium in the labour market that has enabled for many a greater consumption of leisure (this means that the income effect of greater wages

⁸⁵ There is no indication of the data source and the methodology in the article of Kornai.

⁸⁶ Unfortunately there is no similar data in the 1998 survey, so I cannot look at changes between 1992 and 1998.

was bigger than the substitution effect, thus the total effect is that people chose to consume more leisure using their higher incomes).

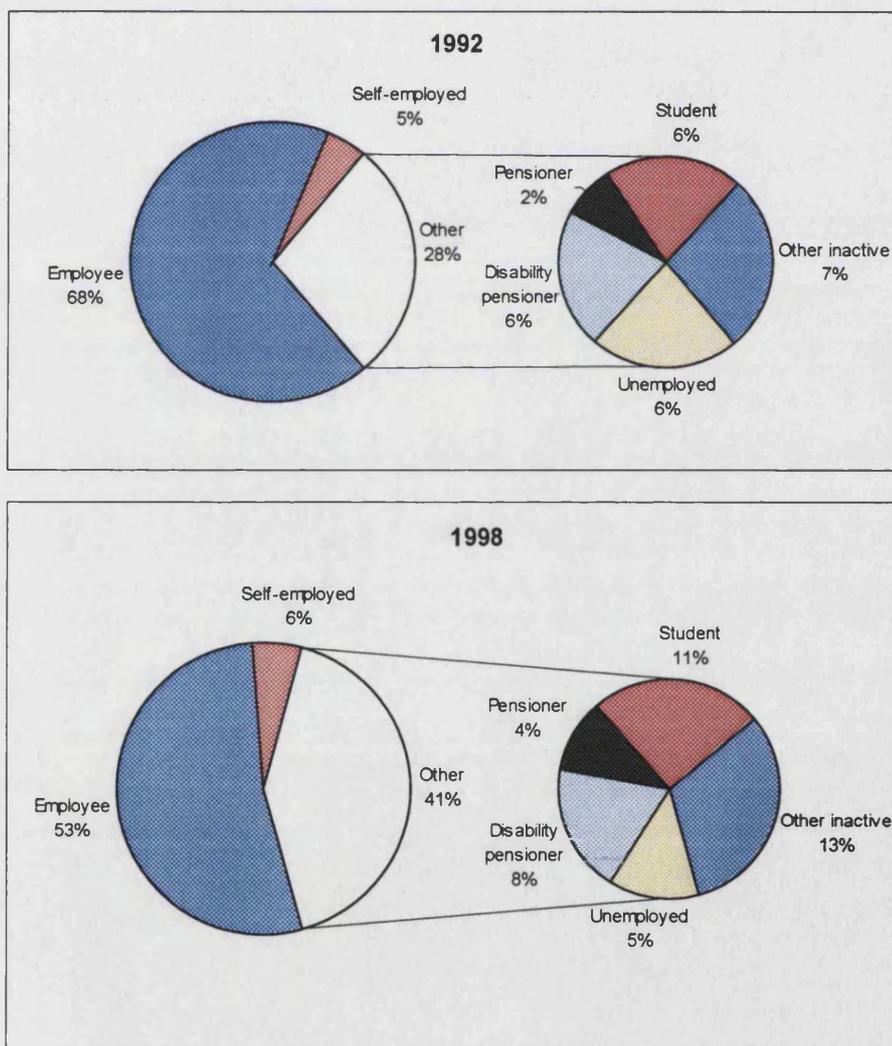
Activities outside the labour market may also be both socially valued and desirable for individuals. Home care may be one such activity, for example looking after children or caring for elderly family members. The provision of welfare at home is emphasised particularly by feminist thinkers, as an equally important element of the welfare system as the state or the market (e.g. Williams 1989). The value home care is often acknowledged by the state as well. In Hungary, the child support system has elements, which may be regarded as a 'wage' for child-care at home. A universal maternity grant was provided until the age of three of the child during most years of transition as well, until 1995 and then again from 1998 (Annex 2). The real value of the benefit, however, significantly declined over time. A crucial aspect of home care is whether it is based on free choice of the individual, and to what extent the welfare state enables such choice between labour and home care. State transfers which acknowledge home care are just one side of the coin, by enhancing individual's freedom to be able to stay *out of* paid work. The state may also increase freedom of women *to* do paid work. One such example is day care for children, enabling mothers to return to the labour market. Enrolment in kindergartens did not decline in transition and is still high: the participation rate among the 3 to 5-year olds was 86% in 1997 (UNICEF 1999, Table 7.1, p. 133). In contrast, day-care provision for children under 3 has substantially declined. The proportion of children in infant homes fell by 25% between 1989 and 1997 (Table 8.1, p. 136). Most likely the major explanation is the decline in the supply of such facilities (although we may also assume that it is also related to falling demand, related to growing inactivity of women). As discussed in chapter 2, there was a major fallback in the provision of such facilities by enterprises. This is expected to affect women's opportunities for paid work negatively.

Falling labour market participation

There was a major decline of employment in the period examined here. As Figure 4.1 shows, employment fell from 73% to 60% among the working age population. The proportion of employees fell considerably, while there was a minor rise in the share of the self-employed. These figures imply that non-employment is a major issue in the Hungarian context. The large

number of pensioners in the total is particularly striking among the working age population, reaching 8 and 12% in the two years. Disability pensioner status and early retirement were typical ways of withdrawal from the labour market, enabled by a permissive legislation, and exploited by employers and employees who tried to avoid unemployment. This seems to be a typical third party payment problem, where neither the patient nor the doctor pays or contributes to the cost of the declared disability status.

Figure 4.1. Labour market participation among the working age population, 1992 & 1998



Notes: definition of working age population: men between 17 and 60 years, women between 17 and 55 years;
 Sample size: N₁₉₉₂=3868 N₁₉₉₈=2885

The existence of pensioners other than disability pensioners among working-age population may seem surprising. The reason for this is early retirement. Most likely the older generations had a comparatively high risk of unemployment, even if retirement age was rather low in Hungary by international standards: 55 years for women and 60 years for men until the 1998 pension reform, when it was raised universally to 62 years.

The proportion of the unemployed within the *total* working age population is largely unchanged⁸⁷. The definition of unemployed used here is the generally used ILO definition. Thus those individuals are classified as unemployed who are not working, who are actively searching job and are available to work. Official statistics, using the Labour Force Survey and the ILO definition, shows that unemployment rate has declined from 9.3% in 1992 to 7.8% in 1998 (KSH 1993, Table 3.2; 1999b, Table 4.3). In contrast, the registered unemployment rate has increased in the same period from 8.2% to 11% (KSH 1999b, Table 4.2). The reasons for the divergence between these two measures and their trends over time have been presented previously in chapter 2. The ILO unemployment rate was 7.6% in 1992 and 8.2% in 1998 in the sample used here. This former number is significantly less than the official unemployment rate. The difference may be due to the fact that the survey looks at unemployment at one particular point in time, i.e. March, while official statistics refer to annual averages of quarterly data.

There is a major increase in the proportion of students. Education policy during transition resulted an increasing enrolment in tertiary education. The previously existing strict entry requirements were eased, and the new state funding of institutions was based on the number of students. In addition, numerous private universities and polytechnics appeared. Between 1990 and 1997 the number of admitted students in tertiary education increased by 2.5 times (KSH 1998, Table 11.19). At the same time, the number of students who applied has nearly doubled, probably thanks to the increasing opportunities. While in 1990 only one in three students who applied were accepted, by 1997 this ratio was one to two. Note, that I have

focussed here on the working age population, where the issue of tertiary education was of major importance. In the educational policy in general there are grave issues for concern during transition⁸⁸.

A possible way of exploration of the rapidly growing rather heterogeneous group of the 'other inactive' could be to separate the 'socially valued activities' from those which are probably not. This, however, seems problematic due to the inconsistency of categories at the two data points. The Labour Force Survey shows that the recipients of child-care support are remained largely on the same level, with a minor decline by 1998 (KSH 1998, Table 4.1). In addition to this, however, increasing number of people used the newly introduced scheme of child-care leave, which provides a flat-rate benefit for full-time mothers with three or more children. These figures, however, cannot capture other forms of social care. In addition, being a housewife may be equally regarded as a socially valued activity. In the 1998 survey used here, one third of the 'other inactive' in working age can be identified as participating in a 'socially valued activity'. This predominantly consists of women on maternity leave⁸⁹, with a rather small proportion of housewives and soldiers in national service. Who make up the remaining inactive? The majority of 'other inactive' receive unemployment benefit (but could not be classified as unemployed by the ILO definition) or live on social benefits. Notably, in 1998 over one quarter of the 'other inactive' are 'other dependants', who do not receive benefits and are supported by family members. A slight majority of this latter group is made up of men. In sum, about one third of the non-student and non-pensioner inactive may participate in a socially valued activity in 1998. Noteworthy, that at the same time there is a substantial

⁸⁷ The null hypothesis that the decline equals zero could not be rejected at a 10% significance level, thus the change is not significant. Note, that the ratio tested here uses the total working age population as a base. In contrast, unemployment rate is defined with reference to the labour force, which includes the employed and the unemployed, but not the inactive (including also those who are discouraged).

⁸⁸ Education spending has substantially declined, and the real wages of teachers have fallen. There was a major decentralisation of the primary and secondary education to municipalities, which brought increasing differentiation in educational attainment, a severe urban-rural gap (Micklewright 1999, p. 370). New forms of secondary education extended the length of education to 6 or 8 years, instead of the previous 4 years (Lannert 1998). These new schools thus push the age of selection much earlier, and increase selectivity. In the long run they may substantially reduce social mobility. Equality of opportunity is particularly problematic for the Gypsy minority (Lannert 1998, pp. 374-75).

subgroup, one fourth, which does not receive social assistance at all. This clearly implies that their absence from the labour market is not due to incentive problems of the benefit system, 'welfare dependency', thus they are most likely involuntary non-employed.

Social divisions of labour

The following analysis will focus on social inequalities of labour market status along four major demographic characteristics, gender, age, ethnicity and educational attainment. Only a working age sub-sample is used, which is defined as men between 17 and 60 years and women between 17 and 55 years. Two main questions are examined: a static one, referring to the social divisions at one point in time, and a dynamic one, changes over the years of transition.

Employment as employee

One of the major characteristics of the Hungarian labour market during Communism and in the early phase of the transition is the high participation rate of women by international standards. The proportion of female employees even outnumbered that of males in 1992. By the late 90s female participation has declined, shrinking opportunities primarily affected women. A further indicator of gender segregation may be that the proportion of women in leading positions also substantially fell between 1994 and 1998 (Frey 1999, p. 22).

Employee status substantially varies by age, ethnicity and educational attainment, as Table 4.1 shows. Employees are most frequent among the middle age groups, and people with tertiary education. A very low proportion of the Gypsy ethnic group work as employees. Overall, we can see that the decline of employment hit all groups substantially and as a result the proportion of employees fell among all major social groups discussed here.

⁸⁹ Only those are included here who are on maternity leave and have no job. Those mothers who stay away from their employment on maternity leave are included among the employees. Unfortunately the breakdown of inactivity is not consistent at the two data points. The earlier survey does not include the category of jobless women on maternity leave.

Table 4.1 Ratio of employees, as a % of relevant social groups

	1992	1998
Male	65.9	53.6
Female	69.4	52.8
Up to elementary education	50.3	34.0
Vocational training	74.4	61.4
High school	72.2	58.9
Higher education	89.2	72.2
Gypsy ethnicity	36.1	33.6
17-29 yrs	61.5	45.5
30-39 yrs	78.8	62.9
40-49 yrs	72.2	62.4
50-62 yrs	54.8	44.6
All	67.6	53.2
N	2665	1556

Table 4.2 Employee status and personal characteristics, logit model

Dependent variable: employee (dummy)	1992			1998		
	Coef. (β)	Std. error	e^{β}	Coef. (β)	Std. error	e^{β}
Female	0.2908	0.0776	1.3376	0.0093	0.0890	1.0093
Ethnicity (Gypsy)	-0.8326	0.1687	0.4349	-0.3313*	0.1976	0.7180
Education:						
vocational training	0.9170	0.0982	2.5018	1.0887	0.1125	2.9703
Secondary	0.7746	0.0989	2.1698	1.0070	0.1185	2.7375
Higher	1.8767	0.1730	6.5322	1.3998	0.1647	4.0546
Age:						
17-29 yrs	-0.5140	0.1023	0.5981	-0.7503	0.1158	0.4722
30-39 yrs	0.3583	0.1133	1.4309	-0.1085	0.1271	0.8972
50-62 yrs	-0.5753	0.1189	0.5625	-0.7408	0.1327	0.4767
Settlement type:						
Town	0.0447	0.0933	1.0457	0.1591	0.1104	1.1724
County centre	0.0869	0.1175	1.0908	0.1522	0.1219	1.1644
Budapest	0.0730	0.1128	1.0758	0.1948	0.1345	1.2151
Constant	0.0899	0.1139		-0.2895**	0.1281	
Observations	3556			2417		
Prob>chi ²	0.0000			0.0000		
Pseudo R ²	0.0971			0.0789		

Notes: * denotes significance at 10% level, ** denotes significance at 5 % level, **bold** denotes significance at 1% level

Base categories: elementary education or less, 40-49 years of age, village or small town

To what extent is the ethnic difference attributable to differences in educational attainment? In order to capture the net ethnicity effect, a rather simple logit model was estimated. This model estimates the probability of being an employee, using explanatory variables such as gender,

education, ethnicity, age and settlement type. Controlling for differences in education, age and gender, Gypsy ethnicity is associated with lower probabilities of being an employee in both the early and the late 1990s (see Table 4.2). In 1998, although the coefficient still remained negative, the size of the effect was considerably smaller. Since in the logit model the size of the coefficient has no meaningful interpretation (only its sign and significance level)⁹⁰, I have also estimated the marginal effect of the explanatory variables on the odds. The odds for Romany to be an employee are 0.43 times lower than for the non-Romany population in 1992. In other words the odds for being an employee versus not being one is expected to decrease 0.43 times for the Romany, other things being equal. An alternative interpretation, indicating the marginal effect of ethnicity on the probability of someone working as an employee, shows that Gypsies were 19.8% less likely to be employees than non-Gypsies. These figures, however, present only rather crude estimates of the real 'net' ethnicity effect, due to the lack of detailed labour market variables, including region specific characteristics. For the purposes of the analysis, however, these results indicate that there was an ethnic division over and above the differences in educational attainment, which may have declined over time.

Women were more likely to work as employees than men in 1992, controlling for differences in educational attainment, ethnicity and other characteristics. By 1998, this gender difference has disappeared.

Entrepreneurship

Entrepreneurship existed during Socialism as well, but economic transition to capitalism greatly increased the opportunities, as discussed in chapter 2. Entrepreneurial activities, instead of being just 'tolerated', became inherent part of the more market spirited political ideology as well. As a result, the number of self-employed and 'unincorporated enterprises'⁹¹ has doubled between 1990 and 1994 (Laky 1995). They have generated half a million new jobs, and by the

⁹⁰ In the logit model the coefficients indicate the estimated change in the log of the odds.

beginning of 1994 the active earners who worked in these reached 22% of the total number of active earners in the country (p. 687). Here I will focus on the group of the self-employed. Which social groups were they recruited from?

There is a greater number of self-employed among men compared to women, as the survey data used here shows (see Table 4.3). There is also a division line by educational level; those who have elementary school or less are much less likely to be entrepreneurs, but self-employment reaches 12% for those with higher education in 1998. The changes over time presented here confirm the finding of previous studies on increased stratification. Between 1992 and 1998 there was a great increase of entrepreneurs among people with higher education and among men.

Table 4.3 Ratio of self-employed, as a % of relevant social groups

	1992	1998
Male	6.4	8.1
Female	3.1	2.9
Up to elementary education	2.3	1.7
Vocational training	6.5	7.1
High school	6.0	5.9
Higher education	4.6	12.0
Gypsy ethnicity	3.4	1.7
17-29 yrs	3.8	2.9
30-39 yrs	5.7	8.2
40-49 yrs	5.9	8.0
50-62 yrs	3.7	4.9
All	4.8	5.6
N (unweighted)	201	177

Multivariate analysis reveals that there was no significant ethnic division, controlling for educational attainment and other factors (Table 4.4). Thus, most likely the ethnic difference can be explained by the lower educational attainment of the Gypsy population. The gender difference, however, remained prevalent, showing that women had a lower probability of

⁹¹ For 'unincorporated enterprises' and the self-employed, or 'sole proprietors' the property of the enterprise and that of the household is not separated, thus the entrepreneur is responsible for his activity with his entire property. As a consequence these entrepreneurs normally do not pay corporate tax on the revenue of the

being self-employed, other things being equal. There was no significant change over time for women.

Table 4.4 Self-employed status and personal characteristics, logit model

Dependent variable: self-employed	1992			1998		
	Coef. (β)	Std. error	e^{β}	Coef. (β)	Std. error	e^{β}
Female	-0.8530	0.1677	0.4262	-1.0325	0.2141	0.3561
Ethnicity (Gypsy)	-0.0007	0.4313	0.9993	-0.4486	0.6918	0.6385
Education:						
vocational training	0.8590	0.2365	2.3607	0.9689	0.3203	2.6350
secondary	0.8845	0.2438	2.4217	1.0731	0.3348	2.9244
higher	0.4439	0.3147	1.5588	1.6173	0.3539	5.0392
Age:						
17-29 yrs	-0.4045*	0.2096	0.6673	-0.7655	0.2691	0.4651
30-39 yrs	-0.0524	0.1981	0.9490	-0.0521	0.2416	0.9492
50-62 yrs	-0.4467*	0.2583	0.6397	-0.6004**	0.2925	0.5486
Settlement type:						
Town	0.0714	0.1985	1.0740	0.1370	0.2526	1.1468
County centre	0.0410	0.2478	1.0418	0.0939	0.2783	1.0984
Budapest	0.4943**	0.2114	1.6393	0.2594	0.2840	1.2961
Constant	-3.1061	0.2629		-3.2036	0.3372	
Observations	3556			2417		
Prob>chi ²	0.0000			0.0000		
Pseudo R ²	0.0467			0.0782		

Notes: * denotes significance at 10% level, ** denotes significance at 5 % level, bold denotes significance at 1% level

Base categories: elementary education or less, 40-49 years of age, village or small town

Self-employment in Hungary is a predominantly individual enterprise. As mentioned before, there was only a slow evolution of large-scale entrepreneurs in the early years of transition (Róbert 2001). The increasing proportion of self-employed with employees suggests growing prosperity. In 1992 82% of entrepreneurs had no employees or co-working family members. By 1998 this proportion declined to 68%. Still, however, the overall majority of the self-employed remained without employees.

enterprise, rather they pay personal income tax (Laky 1995). Typical unincorporated enterprises are 'partnership without legal entity', 'general partnership', and 'limited partnership' (KSH 1998).

Unemployment

Among the social groups listed in Table 4.5, the Gypsy population is the most hit by unemployment. One in every five persons of Gypsy ethnicity are unemployed, using the ILO definition of unemployment. Education, as expected, is clearly correlated with joblessness: the low skilled have the highest proportion of unemployed among them. There was no notable change over time in this ratio⁹². Further calculations indicate that the severe joblessness of the Gypsy population is at least partly attributable to their educational disadvantage. The overall majority of the Gypsy unemployed have elementary education or less, some have vocational training, and none of them has secondary or tertiary education. Is the joblessness of the Gypsy is exclusively attributable to their low levels of education?

Table 4.5 Ratio of unemployed, as a % of relevant social groups

	1992	1998
Gypsy ethnicity	20.5	18.8
Up to elementary education	9.3	7.7
Vocational training	6.4	4.8
High school	4.0	4.0
Higher education	1.5	3.3
Male	7.6	5.5
Female	4.6	5.2
17-29 yrs	8.1	5.6
30-39 yrs	5.7	6.6
40-49 yrs	5.3	5.2
50-62 yrs	4.2	3.4
All	6.1	5.3
N (unweighted)	220	148

The results suggest that the unemployment of the Gypsy ethnic group cannot be explained exclusively by their educational disadvantage. Table 4.6 indicates that there may be another problem as well. There are many more unemployed among people who are both Romany and have only a certain level of elementary education than among the non-Romany who have similarly low educational attainment. Similarly, multivariate analysis shows that controlling for differences in education, age, gender and settlement type, people with Gypsy ethnicity are

⁹² The differences between the relative proportions in the two years have been tested using a t-test. Only those changes are mentioned, which are found significant at least at a 10% significance level.

more likely to be unemployed than the non-Gypsy (Table 4.7). This model is not suitable to describe the actual degree of ethnic disadvantage, however, it confirms that there is an ethnic dimension of joblessness, which cannot be explained by differences in human capital. Kertesi, using labour force survey from 1993, also finds possible signs of ethnic discrimination (1994). His model includes controls for additional (rather aggregate) controls for labour demand, such as industry level and local unemployment rate, beyond the variables used here.

Table 4.6 Ratio of unemployed within ethnic groups, % (among people with the lowest level of education)

	1992	1998	1992	1998
	%		Frequency (weighted cases)	
Gypsy (with lowest education)	22.3	19.7	70	32
Non-Gypsy (with lowest education)	7.7	6.8	43	20

Note: 100%: e.g. total Gypsy population with the lowest education (elementary education or less) in 1992

The results so far, including not only unemployment, but also employee status, suggest a systematically lower probability of labour market participation for the Romany, controlling for educational attainment. A further challenging question, which cannot be tackled here, is to what extent unemployment is voluntary or involuntary. As shown by others the unemployment problem of the Gypsy population is partly related to the regional mismatch between labour demand and supply (the Gypsy living in rural areas in great numbers) (Ábrahám and Kertesi 1996), thus it may be a type of structural unemployment. It is also shown that those working age non-employed who are actively seeking job is actually *higher* among the Romany (Kertesi 1994, p. 993). Possible further economic explanations which may explain some of the difference in joblessness could be that the labour of Gypsy is more 'expensive' for employers, due to the potentially higher risk of quitting, absence from work, etc, beyond possible 'cultural' explanations. These issues, however, to my knowledge, have not been addressed in the literature so far. The consistent findings of my analysis and that of other evidence strongly suggest that discrimination does exist.

Table 4.7 Unemployment and personal characteristics, logit model

Dependent variable: <i>unemployed</i>	1992			1998		
	Coef. (β)	Std. error	e^β	Coef. (β)	Std. error	e^β
Female	-0.6270	0.1469	0.5342	-0.2973*	0.1748	0.7428
Ethnicity (Gypsy)	1.0297	0.2140	2.8001	1.1228	0.2550	3.0735
Education:						
vocational training	-0.3259*	0.1732	0.7219	-0.3779*	0.2162	0.6853
secondary	-0.6708	0.2008	0.5113	-0.5154**	0.2434	0.5973
higher	-1.5934	0.4229	0.2032	-0.6648*	0.3527	0.5144
Age:						
17-29 yrs	0.4098**	0.1910	1.5065	0.1367	0.2231	1.1465
30-39 yrs	0.0629	0.2082	1.0650	0.2586	0.2416	1.2951
50-62 yrs	-0.4693*	0.2612	0.6254	-0.4894	0.3011	0.6130
Settlement type:						
Town	-0.1027	0.1667	0.9024	0.1547	0.2161	1.1674
County centre	-0.3144	0.2283	0.7302	0.2175	0.2390	1.2430
Budapest	-0.3457	0.2266	0.7078	0.2022	0.2697	1.2241
Constant	-2.1168	0.2077		-2.5363	0.2482	
Observations	3556			2417		
Prob>chi ²	0			0		
Pseudo R ²	0.0677			0.0371		

Notes: * denotes significance at 10% level, ** denotes significance at 5 % level, bold denotes significance at 1% level

Base categories: elementary education or less, 40-49 years of age, village or small town

The proportion of unemployed declined among men (see Table 4.5). This most likely means that long-term unemployed people became discouraged from labour market participation, as the rising number of inactive among men shows (see Figure 4.2). The logit model indicates that women are less likely to become unemployed than men, controlling for educational differences and other factors, although the significance level of the coefficient has declined over time (Table 4.7). Notably, there seems to be a weakening link between education and unemployment: the proportion of jobless within the groups with higher education increased over time. The multivariate analysis confirms this result, the coefficient of higher education has become lower over time, indicating that people with higher education are still less likely to become unemployed compared to the base category of people with primary education or less in 1998, but this probability may not be any different from the chances of those with secondary education.

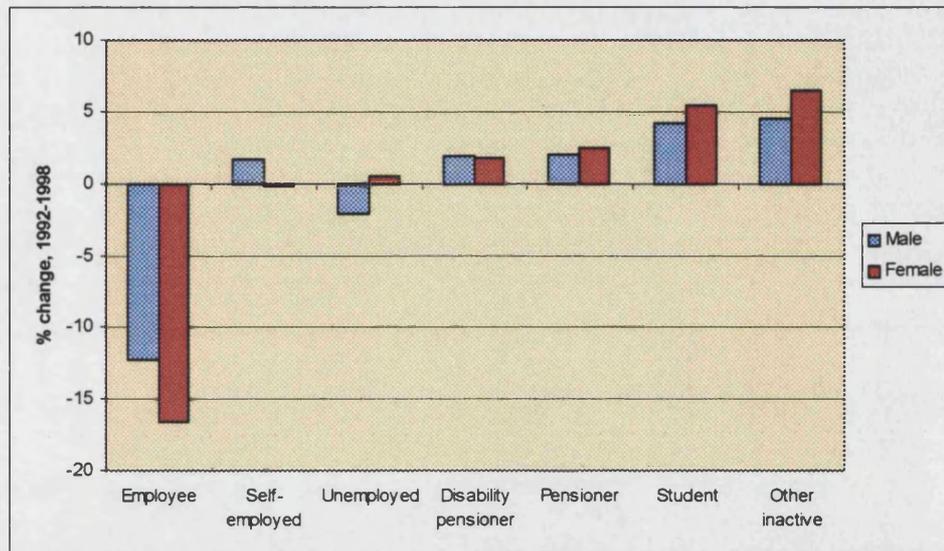
Long-term unemployment makes up a substantial proportion of the unemployed. Defined as being unemployed for at least a year, their proportion was 59% at the early point in transition.

This fell to 45%, probably due to the reduction of the eligibility period for benefits to one year (see Annex 2 in chapter 2). Women were somewhat more hit by long-term unemployment than men at the early transition date. This reversed over time and by 1998 in contrast to the 50% ratio of men only 39% of unemployed women were jobless for a year or more. The relative proportion of long-term jobless Gypsies has declined over time, and in 1998 there was no significant difference between the Gypsy and non-Gypsy population groups. Similarly, there was an equalising trend among educational groups. In 1998 there was no significant difference among the proportions of long-term unemployed within specific education groups.

Social divisions in transition

Transition has brought a major gender division in the labour market, following a long period of high participation of women during Socialism. Women withdrew greater numbers from the labour market than men. As Table 4.1 suggests many of them lost their employee status and became inactive. These changes primarily hit those groups, which had low education. As a result, the educational structure of female employees improved over time. Women did not use the opportunity to become self-employed. This may be attributable to the way that they followed less the 'pull' or the 'push' effects of the labour market, in other words women used the opportunities or followed necessities to become entrepreneurs to a lesser extent than men. On the other hand, men and women seem to have exploited the opportunities for disability pension and early retirement to the same extent. The share of women among students rose, and as a result there are about equal numbers of male and female students in the working age population.

Figure 4.2. Change in employment status by gender, 1992-1998 (in % points of the working age population of the same gender)



The transition of the labour market has peculiar characteristics for specific age groups. The young became more involved in education⁹³. The middle age groups tended to become entrepreneurs more, and they were highly represented among employees as well. Many of those in their fifties or over withdrew from the labour market, using opportunities for disability pension or early retirement.

There is no clear overall trend for the changing role of education in explaining labour market participation. People with higher education seem to have increasingly become entrepreneurs. This effect of higher education prevails after controlling for age and other personal characteristics. In contrast, higher education seems to have declining correlation with employee status. Unemployment affected people with higher educational attainment to a lesser extent at both particular data points. Over the 1990s, however, people with higher education became less protected from unemployment. In sum, there is evidence for systematic differences in labour market participation for various educational groups at both point in time.

⁹³ The appearance of private higher education institutions and the introduction of tuition fees in state universities were new phenomenon of the 1990s. Despite these increasing charges, however, the number of applicants to higher education institutions greatly increased.

There is no sign for the increasing importance of human capital in general over time, as measured here. This may be due to the simple measure used here, which does not include labour market experience, or due to the lack of controls for industry and occupational specific features in the models. Earlier results in chapter 3 indicated the *increasing* importance of educational level for incomes over time. Skills premiums have also increased: while in 1992 the earnings of people with tertiary education were 5.6 times higher than the earnings of those with only elementary education, this ratio rose to 6.8 by 1998. Probably this plays a great role in explaining the increasing willingness for studying in higher education, too.

4.3 HOUSING

The vast majority of publicly owned and heavily subsidised, rental housing was privatised in the early 1990's (as mentioned already in section 2.3). Most of the tenants expected financial gains from this. Although many of them had to face a vast cost of renovation due to an existing repairs backlog, overall, the housing privatisation proved to be a 'national gift' (Dániel 1997b). According to Dániel, the main winners are the top groups in terms of housing value: those who lived in larger and better quality dwellings gained more and faced lower cost of renovation.

This housing privatisation aggravated a previously existing injustice in the housing market. While most of those who owned their houses never received housing subsidies during the socialist system, and fully had to pay the price of their own home, those who were the major beneficiaries of the state system before the transition, gained even more during the privatisation process. As discussed earlier, these beneficiaries were *not* the most needy, since the principles of distribution of rental housing were based on partly political and ideological considerations. For example, members of the political elite often lived in rented accommodation (Dániel 1997a). Thus, those who always lived in owner-occupied housing, did not gain from the generous privatisation 'gift'. In addition, those who remained tenants by the end of the transition period, were mostly those with the lowest quality of housing. Altogether, the process of housing privatisation may well have caused a feeling of injustice in many

people. Unfortunately the available data do not allow me to identify changes in housing ownership during the 90s, thus I cannot test how different are the beneficiaries of the housing privatisation (new home owners) from the losers (home owners already before transition). Data on actual housing ownership status, however, enables me to test another groups of 'losers', those who remained tenants by the end of the 90s.

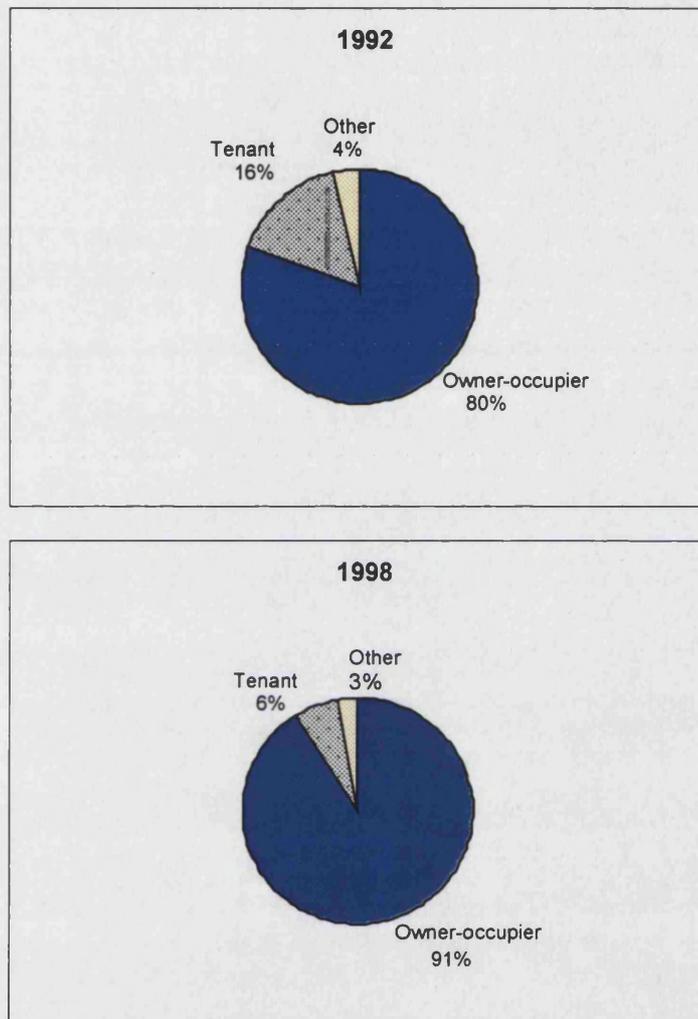
The unit of the following analysis will be the individual. Although housing characteristics are typically refer to households, and all household members share these conditions, the ultimate concern of the thesis is individual's well-being. This choice is also justified with the nature of this analysis: the focus is on the distribution of objective well-being rather than its explanation.

Ownership structure: declining share of tenants

The proportion of individuals who live in rented housing declined from 16% to 6% between 1992 and 1998 (Figure 4.3)⁹⁴. By the end of the 1990s the overwhelming majority of the population lived in their own homes. The small share of tenants seems to imply that both the market of public housing and that of rented private housing became marginal. What are the relative sizes of these two markets? The overall majority of tenants live in publicly owned housing (80% and 91%, respectively). Only a small proportion rents a private home (7% and 2%, respectively). Interestingly, there is a considerable share of housing provided by enterprises, making up 11% and 10% of tenants in 1992 and 1998. These figures thus indicate that while there was a shrinking in the supply of public housing, its share increased in the rental market. At the same time private rental housing market decreased substantially.

⁹⁴ A similar decline can be observed if households are the unit of the analysis. In 1992 18% of households were tenants, in contrast to 7% in 1998. The difference between the individual and household distribution of housing ownership implies that relatively smaller households tend to be tenants.

Figure 4.3. Housing ownership, 1992 & 1998



Notes: The other category included for example, who live in the flat in exchange for long term care of an elderly person, those who live there as friends or relatives of the owner, or those who use the flat illegally.

Sample size: $N_{1992}=5336$; $N_{1998}=3794$

The results presented in Table 4.8 seem to confirm the analysis of Dániel, discussed earlier, on two major accounts: (1) the distribution of tenant status was not based on 'need', but on a rather ad hoc distribution principle during Socialism, and (2) those who remained tenants after the massive housing privatisation, were the most needy who could not buy their homes thus could not profit from the opportunities due to lack of resources. The bulk of the privatisation still seemed to lie ahead at the point of the survey in 1992. Only 25% of tenants said that their housing was offered for sale by the local government, and the majority of public housing was

not on sale yet. Altogether 6% of owner-occupiers were those who acquired their homes by purchasing it from the local government. Altogether, thus it seems plausible to speak of the traces of 'Socialist' housing policy in 1992 despite the start of housing privatisation. Gypsies and lower income groups are highly represented among tenants in 1992, which shows that many of the needy received public housing. On the other hand, the better off are also highly represented among tenants. A further sign of the peculiar public housing policy of the Socialist era is that household size was not a specific criterion for entitlement either, as the lack of relationship between the number of children and tenant status indicates.

Table 4.8 Tenant status of individuals, as a % of relevant social group

	1992	1998
Location of residence:		
village or small town	1.6	0.9
town	14.8	2.3
county centre	25.1	11.6
capital	36.7	14.2
Income quintile group:		
1	16.9	10.3
2	18.1	5.6
3	12.1	4.4
4	13.0	3.8
5	15.7	3.8
Number of children in the household:		
None	15.7	5.3
1	16.6	5.2
2	11.8	6.5
3 or more	13.7	7.7
Gypsy ethnicity	28.8	18.1
All	15.1	5.5
N	1105	229

By the late 1990s the relationship between tenant status and 'need' strengthened. Low-income groups, households with Gypsy ethnicity, or those with many children were relatively highly represented among tenants in 1998. This, however, does not refer to a fundamental change in housing policy. The apparently more 'meritocratic' ownership structure of public housing simply comes from the selective process of housing privatisation. The groups who did not have the resources to buy their homes, or those whose home was not offered for sale, tend to

be 'the needy'. These 'needy' were thus those who did not benefit from the grant 'privatisation gift' described earlier. The apparently strengthening link between 'need' and public housing is thus far from being a most welcome outcome of economic transition.

There is a major concentration of social housing in urban areas. As expected, rented housing exists mostly in cities and the capital. In Budapest over one third of the people lived as tenants in the early 1990s. By 1998 the share of tenants declined to 14%. The concentration of tenants, who, as discussed before, predominantly live in social housing, still remained the greatest in big cities: the county centres, and the capital. In villages and small settlements the overall majority of people own their homes and live in houses built by themselves⁹⁵.

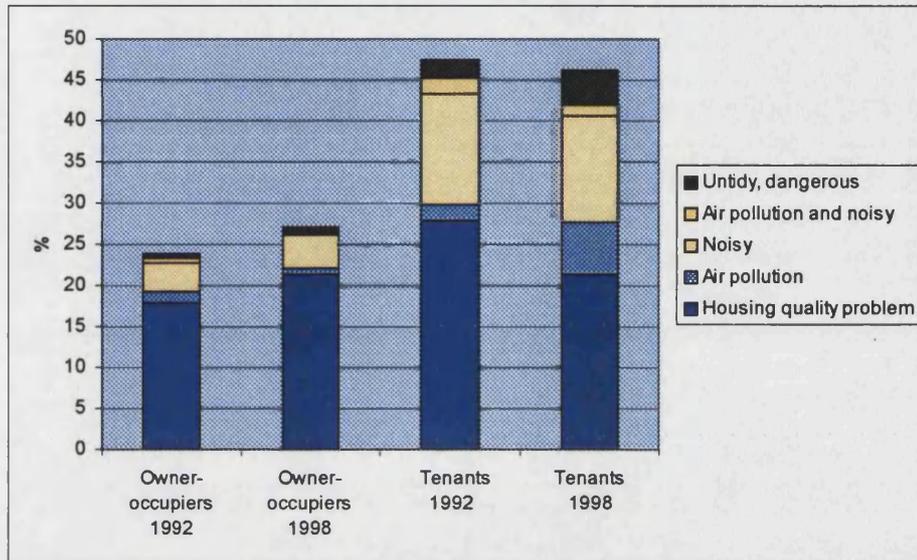
Housing quality: increasing disparity

Housing ownership is associated with housing quality: tenants faced worse housing conditions than owner-occupiers. As Figure 4.4 shows nearly about half of tenants reported some neighbourhood or housing quality problem both in 1992 and 1998. Despite the massive sale of public housing the 'remainder' of public housing was apparently affected by problems in a similar extent⁹⁶. There was a major improvement in the conditions of privately owned homes. This may appear unexpected, because it happened despite the fact that many privatised flats, which were recently purchased from the local governments, had a major renovation backlog. It thus seems that people trusted the security of the property rights in the new market system and expressed their ownership rights by spending on the improvement of their homes.

⁹⁵ In 1992 among the inhabitants of villages and small settlements 59% lived in houses built by themselves. Only 23% bought their homes and 13% inherited it.

⁹⁶ The t-test shows that the change was not significant at $\alpha=0.1$. We thus cannot say that there was a decline in the occurrence of housing problems among tenants in the original population.

Figure 4.4 Occurrence of housing quality or neighbourhood problems by ownership status, 1992 & 1998



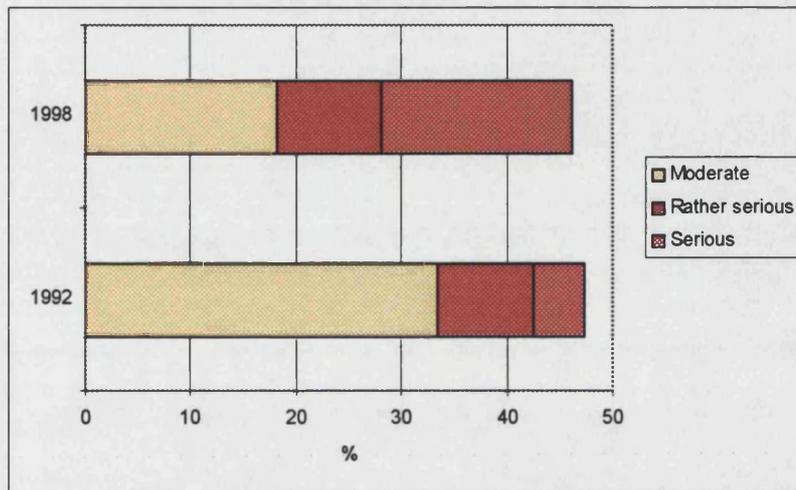
Notes: 'Housing quality problem': dampness, fungi, darkness, no separate entrance or other problem.

'Air pollution and noisy': indicates the occurrence of both problems. Thus, in contrast to 'noisy' or 'air pollution' categories it indicates a graver problem, and there is no overlap between the categories. (For the variable definition, see: 'neighbourhood problems' in Appendix B.)

Sample size: $N_{1992}=5271$; $N_{1998}=3475$

Housing quality problems became graver among tenants over time. Although there was no sign of escalating problems, measured by the share of homes affected by problems (Figure 4.4), a different measure shows that the nature of these problems aggravated. As Figure 4.5 indicates, the proportion of those people who live in housing with numerous serious faults increased. This seems to indicate a compositional change during the 1990s: housing privatisation was a selective process and many of those who remained tenants by the late 1990s were those who had grave housing quality problems.

Figure 4.5 Extent of housing quality or neighbourhood problems among tenants, 1992 & 1998



Note: *Housing problems*: dampness, fungi, darkness, air pollution, noise, dangerous neighbourhood, no separate entrance or other. If one problem occurs, then it is labelled as 'moderate', if two, then 'rather serious', if three, then 'serious'. (For more, see Appendix B.)

Sample size: $N_{1992}=537$; $N_{1998}=93$

In this section the analysis has so far concentrated on tenant status, which was mostly affected by the housing privatisation. From the point of view of the starting research question, however, housing quality problems indicate the lack of an essential element of well-being, and are interesting per se, irrespective of housing ownership, and also irrespective of how much direct responsibility the person has in resolving these problems.

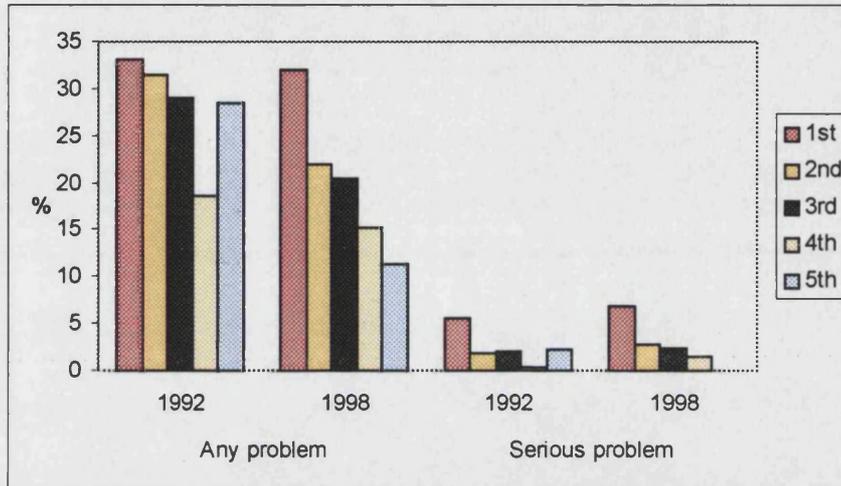
Overall, there seems to be a significant upgrading of the housing quality. While in 1992 28% of the people lived in housing conditions with some quality problems, in 1998 this ratio was only 20% (Table 4.9). This improvement affected nearly all social groups. The extent of this improvement, however, was far from being equal for all.

Table 4.9 Occurrence of housing quality problems among individuals in specific population groups, %

	<i>Any problem</i>		<i>Serious problems</i>	
	1992	1998	1992	1998
<i>Location of residence:</i>				
village or small town	23.3	21.6	2.5	2.4
town	24.8	15.4	1.5	1.5
county centre	27.0	19.2	2.0	4.2
capital	44.0	23.9	3.6	2.8
<i>Income quintile group:</i>				
1	33.2	32.1	5.6	6.9
2	31.4	22.0	1.8	2.7
3	29.1	20.5	2.1	2.4
4	18.7	15.3	0.3	1.5
5	28.5	11.4	2.2	0.0
<i>Number of children in the household:</i>				
None	28.3	19.1	2.1	2.2
1	26.5	17.6	2.3	2.2
2	27.0	17.9	1.3	3.4
3 or more	35.2	43.1	8.7	7.5
<i>Gypsy ethnicity</i>	53.2	46.9	16.8	11.6
All	28.1	19.9	2.4	2.6
N	1660	683	138	87

Which social groups were primarily affected by housing problems in general? Housing quality problems are concentrated among the bottom quintile group, the Gypsy ethnicity, and families with three or more children. As Table 4.9 and Figure 4.6 show, the social divisions have increased in terms of housing quality over the 1990s: while the occurrence of such problems declined in the population in general, there was a minor or no decline at all among the mentioned disadvantaged groups. These regularities seem to be prevalent irrespective of the measure of housing quality problems used, either the occurrence of any problem or that of serious, accumulated problems. *In sum, the changes of housing quality during economic transition increased the concentration of housing quality failures among certain specific disadvantaged social groups.*

Figure 4.6 Occurrence of housing quality problems among individuals in various income quintile groups, 1992 & 1998



Note: "serious problems" means the occurrence of at least three housing quality problems

Observations: Any problem: $N_{1992}=1660$; $N_{1998}=683$; Serious problem: $N_{1992}=138$; $N_{1998}=87$

There was a regional disparity in housing quality in the early 1990s, which seems to have disappeared later on. In 1992 housing quality shortfalls were the highest among inhabitants of the capital. This can be probably attributed to the major renovation backlog of the large public housing stock of Budapest. The difference between housing quality in the capital and in small settlements, using both a 'weak' measure of 'any problem' or a 'strong measure' of 'serious problems', is not significant in 1998. This may be explained by the effort of new owners to upgrade their homes. Despite this, it seems somewhat counterintuitive that despite the relatively larger proportion of public housing in the capital, housing quality in general is not worse there than in small towns. A possible explanation may be the difference in incomes. As presented in the previous chapter, even after controlling for a series of household characteristics, including employment and human capital, households in villages and small settlements have significantly less household income than households living elsewhere. Owner-occupiers in villages thus may have comparatively less resources to keep up the quality of their homes.

4.4 SOCIAL RELATIONS

The major demographic changes in Hungary during the 1990s included the rise of divorce rates, and an increase of the proportion of cohabitation and extramarital births. As discussed in chapter 2, there is a long-term trend of declining fertility, which resulted very low levels of birth rates in European comparisons. The datasets used here confirm these trends. As Table 4.10 shows, the number of single people increased between 1992 and 1998, and the proportion of those who are married declined. The dataset cannot provide firm evidence for the spreading of co-habitation. Probably due to the small number of cases the increase in the proportion of cohabiting individuals is not significant.

Table 4.10 Marital status of the adult population, 1992 and 1998

	1992	1998
Single	16.7	20.1
Married	63.7	57.4
Divorced	6.4	7.3
Widow/er	11.6	12.9
Cohabiting	1.7	2.3
Total	100.0	100.0
N	5336	3788

In the same period the number of children also declined. As Table 4.11 shows, the proportion of childless households increased. At the same time the share of one or two-children households fell. The large family model seems to keep its place: the share of families with three or more children did not change in the period observed here⁹⁷.

⁹⁷ The decline is not significant, in other words, the null hypothesis that the share of families with three or more children is the same in 1992 and in 1998 could not be rejected at 90% confidence level.

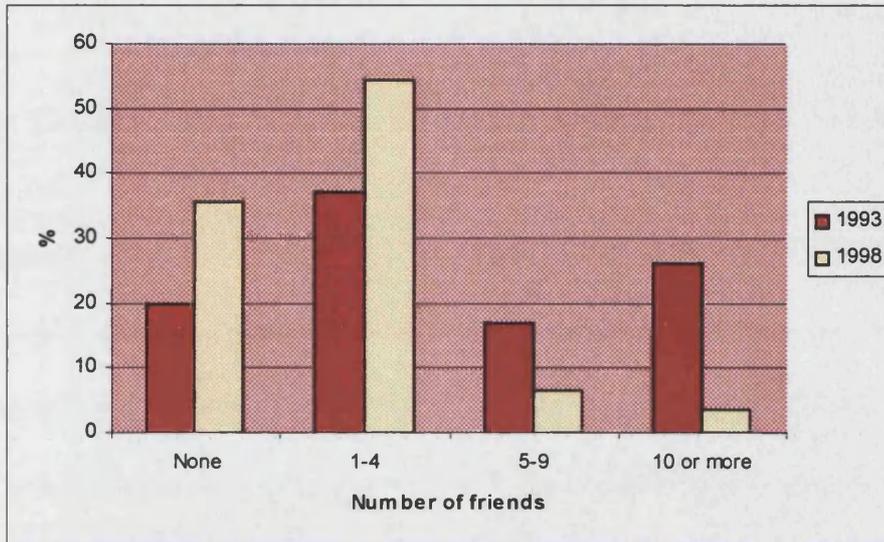
Table 4.11 Family size in 1992 and 1998, distribution among adult individuals

Number of children in the household	1992	1998
None	59.9	66.3
1	19.3	17.7
2	15.8	11.4
3 or more	4.9	4.6
Total	100.0	100.0
N	5336	3795

Decline in social contacts

A major change is the apparent decline in social contacts over the 1990s. Using secondary data from 1993, Figure 4.7 presents a considerable fall in the number of friends in Hungary by 1998. Notably, while in 1993 one in five persons said that they had no friend with whom they could discuss minor or greater personal problems, by 1998 their number rose to more than one in three. Others also confirmed this declining trend, using data from 1993 and 1997 (Albert and Dávid 1998). Is this attributable to a possibly changing notion of friendship or can we suspect a deeper social phenomenon, for example an increasing degree of individualisation or in contrast, a growing reliance on close family ties? Unfortunately there is no other measure of comparable data on social interaction over time. Available information for 1998, including a different measure of social contacts, however, confirms that social relations are indeed in a grave situation, which may be called a crisis without overstatement.

Figure 4.7 Number of friends of individuals with whom could discuss problems, 1993 & 1998



Source of 1993 data: (Albert and Dávid 1998, p. 258)

N₁₉₉₃=4776; N₁₉₉₈=3778

Infrequent social contact seems to be grave problem in general in the country. The proportion of individuals who live in households, which say that they invite relatives or friends to their homes or who go to visit others in their homes less than a month or they never do it is 60%, according to data from 1998 (see Table 4.11). This ratio is very high in European standards. European Community Household Panel data shows that the average proportion of “relational (self)exclusion”, measured in a similar way to the indicator used here, is between 5 and 10% among the total population of 13 countries and it is not over 15% in any of the examined countries (Eurostat 2000, Figure 3.13)⁹⁸. A possible explanation for this difference may be that the European survey asks about meeting people at home or elsewhere, while the Hungarian one investigates meeting people *at home*. This difference in wording, however, cannot explain the extent of the disparity entirely. The reason is cultural: Hungarians do not typically go out a

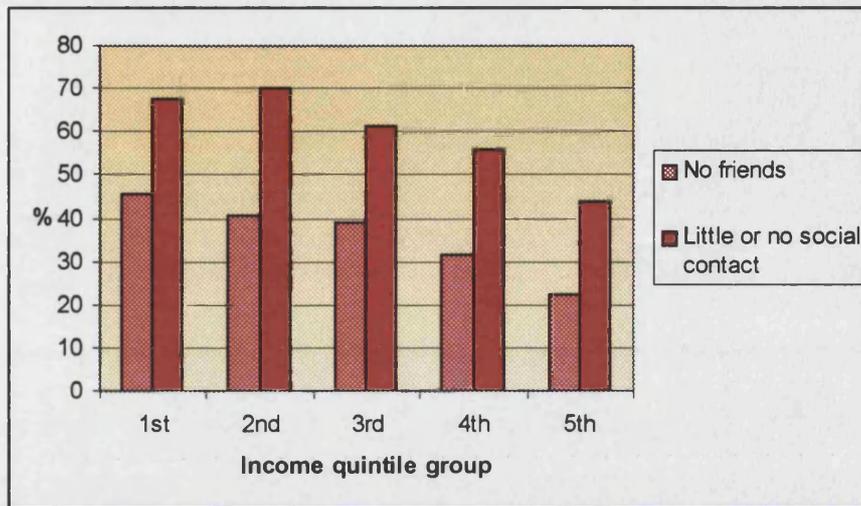
lot, so it is unlikely that they would have intense social interactions outside the sphere of their homes. As the data show, only 17% of the adult respondents say that they go out at least once a month to café or to pub. In sum, we may realistically assume that Hungarians have much less social contacts than people in EU countries.

Major social divisions by income groups

There is a considerable variation of social relations by income. As Figure 4.8 shows both the proportion of people with no friends and those who have rare contacts or no contacts at all is higher in the low-income groups. The share of people who say that they have no friend at all with whom they could discuss their smaller or greater personal problems is about twice as big in the bottom quintile group than in the top one. Similarly, the problem of limited social contacts occurs more frequently among the poor. Similar patterns exist in countries of the European Union. The share of persons with rare contacts or without contacts with friends and relatives is relatively high in France and Portugal, approaching 15% among the poor (Eurostat 2000, Figure 3.13). In the non-poor population the ratio is lower, reaching about 8 and 10%, respectively. Why does income has any impact of social relations? One possible explanation is that higher income is associated with labour market participation, and it is actually this latter factor, which contributes to more social interaction. We may also suspect that households with low income can afford less to invite friends and relatives to their homes. It may be related to pride and standards of hospitality as well. Paraphrasing Adam Smith, this latter may be called 'appearing in *private* without shame'. This assumption is supported by empirical evidence. The survey data used here shows that 70% of bottom quintile households said that they could spend less on receiving guests than they needed. In contrast, this ratio is 36% in the top income quintile group, despite the fact that 'need' is subjectively interpreted, and has probably higher level among the well-off.

⁹⁸ Kitty Stewart, also using the ECHP, shows that there are also major regional disparities within countries in terms of the frequency of social contacts, e.g. between the French and Flemish speaking parts of Belgium, and the Flemish have less contacts (Stewart 2002, pp. 45-46). A further interesting insight of her study is that the relative intensity of social participation measured as membership of clubs or organisations across countries is rather different from the country ranking in terms of the previously discussed measure of personal contacts. (Unfortunately the social participation measure is not available in the Hungarian dataset.)

Figure 4.8 Relational (self)exclusion in various income quintile groups, 1998



Note: Share of people who have no friends and those who meet people less than once a month or never
 N=3746 (no friends); N=3789 (little contact)

Inadequacy of personal relations rises with age, low educational attainment and is higher among the inactive and the unemployed. While 55% of the people over 62 years say that they have no friends with whom they can discuss problems, this ratio is only 15% among young adults under 30. The variation of interaction with friends by age may be linked to increasing family and work responsibilities among the middle-aged groups and possible difficulties of mobility due to declining health in older age. We might say that there is a possible replacement of friends for family contacts over time. This may cause particular problems at old age, at the death of the spouse. The relationship between friends and educational level suggests that human capital is correlated with social capital. Longer periods of education and the prolonged period of remaining single, which is normally associated with this, may contribute to the establishment of long-term friendships. Also, higher levels of education itself may also contribute to the development of social skills⁹⁹. People who do not participate in the labour market tend to have no friends in greater numbers compared to those who work or study in

⁹⁹ Recent research shows that social skills are increasingly demanded by employers, beyond traditional criteria of 'merit', such as job experience or educational attainment (Jackson et al. 2002). It follows from this that rational employees do better if they 'invest' in developing their social skills.

full-time education. This confirms the widespread hypothesis that work is a major force of social integration.

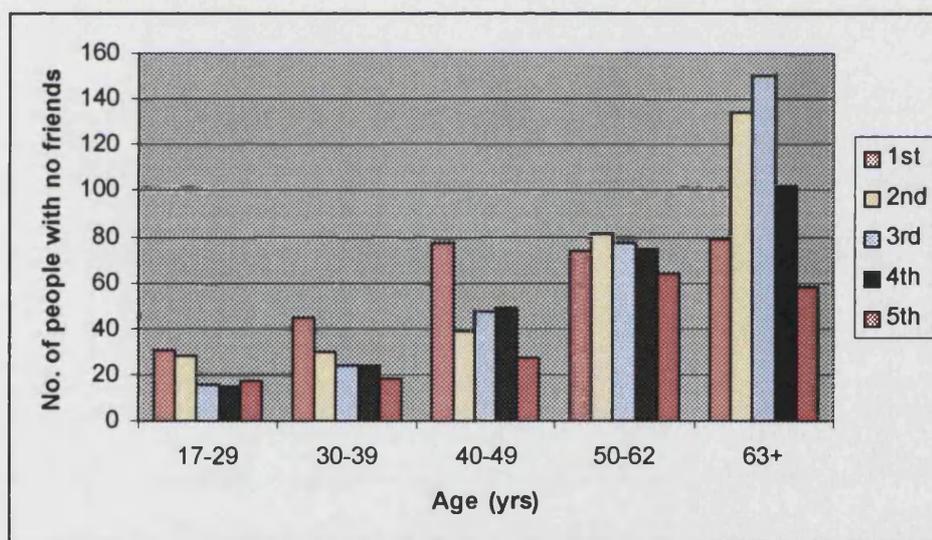
Table 4.12 Relational (self)exclusion, measured in % of relevant social group, 1998

	<i>Share of persons with no friends with whom they could discuss problems</i>	<i>Share of persons who live in households which meet relatives or friends less often than once a month or never</i>
Male	36.1	60.7
Female	35.2	58.8
17-29 yrs	15.1	58.2
30-39 yrs	29.1	50.3
40-49 yrs	34.3	61.9
50-62 yrs	43.3	64.3
63 or more yrs	54.9	61.3
Gypsy ethnicity	45.6	72.2
Up to elementary education	46.0	68.0
Vocational training	34.5	59.7
High school	22.7	50.9
Higher education	19.2	40.8
<i>Location of residence:</i>		
village or small town	42.2	69.2
Town	35.3	58.3
county centre	27.5	50.6
Capital	29.5	49.3
<i>Labour market status:</i>		
Employee	25.9	55.9
Unemployed	34.7	65.8
Disability pensioner	42.4	66.5
Pensioner	53.4	62.8
Self-employed	27.7	51.3
Student	4.7	57.9
Other inactive	39.4	60.3
<i>Number of children in the household:</i>		
None	37.4	58.5
1	29.8	65.5
2	30.5	52.2
3 or more	43.9	70.7
All	35.6	59.6
N	3746	3789

For larger families, social interaction with others outside the family seems to be less of a priority. Both indicators of social contact in Table 4.12 show that families with three or more children are more likely to have rare social contacts, and their adult family members more frequently live without friendship. Among large families thus it seems that external interaction is partly replaced by inter-family ties. The relationship between settlement size and social contact appears rather counterintuitive. Life in larger settlements apparently is associated with

less social isolation. There are several possible explanations for this. However, none of these offers a causal explanation. This would necessitate further in-depth analysis. Smaller settlement size at large is associated with lower average income and joblessness. These two factors were shown to be correlated with lower levels of social contacts. Also, the proportion of families with three or more children is the highest among residents of villages and small towns. This was also shown to be a factor of greater withdrawal from social interactions. The relatively 'disadvantaged' situation of the Gypsy ethnicity group may be also related to similar factors, particularly that of greater family size. Nearly one third of Gypsy adults live in families with three or more children, as the current survey shows. This may explain why they keep contact with people outside their households less frequently.

Figure 4.9. People with no friends by income quintile groups within specific age groups, 1998



To what extent income levels explains the deprivation in personal relations? As shown before, the less well-off tend to experience social isolation more than the richer (Figure 4.6). This, however, may not suggest that income is a dominant factor in social relations. One possible way of looking at the role of income is to compare the social isolation of various age groups. Age, as Table 4.12 shows, appears to have a pronounced pattern: the young are the most 'sociable' and the elderly experience the most social isolation. If income was the main factor explaining variation in social contacts, then age differences would greatly diminish within a specific income group. Or to put it differently, the elderly would experience social isolation

primarily because they have low income, and the young would have many friends because they have high incomes. This does not sound plausible, and is not supported by evidence here. As Figure 4.9. shows many elderly people have no close friend, but most of these actually belong to the middle income groups. Thus *it is not primarily the poor within the elderly who suffer the most from social isolation*. Also, in various age groups we can see that there is no linear relationship between income and the lack of friends, *higher income does not monotonically decrease the occurrence of social isolation among most age groups*.

4.5 CONCLUSION

In the period examined here there was a major fall of labour market participation, in the supply of public housing and as a result of this latter, that of tenant status, and there were signs of diminishing social interaction between people. Although the elimination of existing legal constraints extended people's personal freedom, the changes of the labour market, the housing market and that of social policy brought new constraints to them. Large numbers of people withdrew from the labour market, and we may well suspect that for most of them this was involuntary. In 1998 only one fourth of the non-student and non-pensioner inactive population could be clearly identified as 'voluntary inactive', because they participated in some sort of socially valued activity, e.g. they were on maternity leave.

There are major social disparities in most non-income measures of well-being, and also often signs of increasing gaps over time. The *Gypsy population* is particularly struck by unemployment, which can only be partly explained by their comparatively low levels of education. Existing literature finds that even after accounting for their regional concentration and human capital, there is a considerable unexplained difference, which suggests that there is discrimination in the labour market against the Romany (Kertesi 1994; Ábrahám and Kertesi 1996). *Women* may be regarded losers in the labour market. Women's participation in the labour market has declined greatly, and they did not benefit from increasing opportunities as entrepreneurs either. Tenants and low income groups are losers on the housing market. Finally, the old age

groups, the low educated and those with small income are deprived the most in terms of social relations.

Interestingly, the analysis found *no clear overall trend for the changing role of educational attainment in explaining labour market participation*. People with higher education seem to have increasingly become entrepreneurs. This effect of higher education prevails after controlling for age and other personal characteristics. In contrast, higher education seems to have declining correlation with employee status and also with unemployment, where the negative correlation decreased. In sum, there is no sign for the increasing importance of human capital in general over time, as measured here. However, earlier results in chapter 3 indicated the *increasing* importance of educational level for incomes over time. In addition, skills premiums have also increased: while in 1992 the earnings of people with tertiary education were 5.6 times higher than the earnings of those with only some level of elementary education, this ratio rose to 6.8 by 1998.

The analysis revealed that there is a *strengthening link between income level and housing conditions*. The relative income situation has become more strongly correlated with tenant status and with lower housing quality after the completion of the massive social housing privatisation. An interesting finding is the prevalent positive association between social contacts and income level: *the rich having a richer life in social terms as well*. Money thus seems to buy well-being to some extent. Also, money appears to increasingly influence what quality of life people can achieve. Is money a source of satisfaction for people? Has money become *increasingly* important as a determinant of happiness? These questions will be addressed in chapter 6 and 7.

The results also show that solely income would not be able to describe the disparities in well-being and their changes of over time. Income situation had a weak relationship between tenant status and also with housing quality problems in 1992. Using a simple income measure would not have explained people's housing situation at that time, thus it would not describe adequately the changes over time either. *Income does not exclusively explain variation in social contacts* either. As shown, age has a major role as well, nearly twice as many elderly people have no friend than young adults between 30 and 39 years. It is not, however, money, which explains the lack of friendship for the elderly: *it is not primarily the poor within the elderly who suffer the most*.

The starting position of this chapter was that at large certain labour market positions are valuable per se (employee status, self-employment), while others are less so (unemployment). Labour market participation, or participation in a different socially valued activity, as it was argued, is an essential element of human capabilities, thus are treated as objects of value here. This implies that there is a value attached to specific labour market categories, beyond their role as determinants of the individuals' income position (labour market status was shown to be a main associate of total household income in the previous chapter, controlling for a series of demographic characteristics). To what extent do people's personal assessment confirm these hypothesis? Are people in general happier if they are employees or entrepreneurs, controlling for their income level? Is unemployment a factor of distress, beyond the resulting lower level of income? These issues will be discussed in the forthcoming part of the thesis, looking at subjective well-being, and in chapter 7 in particular.

SUBJECTIVE MEASURES OF WELL-BEING. AN OVERVIEW

The approach followed by this research is not primarily concerned by the distribution of goods among people, but the impact of these goods on them. The distribution of goods is relevant, if we can assume that the possession of these goods is valuable, or going further than this, if we can assume that the ownership or consumption of these goods contributes to something that may be called a 'good life'. In other words, the ultimate object of value is ends, not means. Such ends are capabilities in Sen's theory, utilities in economics. As described earlier in chapter 1, relating to the operationalisation of Sen's capabilities theory, the major problem is to account for how individuals actually convert resources into capabilities, *potential* states of being. For empirical purposes a practical solution is to narrow down the concept to functionings, *actual* states of being. Functionings can account for individuals' different abilities in converting resources into end-states. 'States of being' can be material, but can be social as well, for example family relations. Further to this, in my interpretation, 'states of being' can be psychological as well, such as an individual's situation as perceived by himself. A major measure of this is how satisfied he is with his life.

The measure of individual's satisfaction is relevant, both from a theoretical and from an empirical perspective. As I will argue, it is important and it is measurable. Very little has been done on subjective well-being (SWB) in transition countries. This is partly due to the fact that very scant data were available in the years before transition. According to some, challenging that all were happy was an issue of political 'taboo'. Somewhat more surprisingly, there is not much research on subjective well-being during transition either. This analysis will provide new empirical evidence on the micro structure of SWB in Hungary, and one of the very first studies on the relationship of social change and SWB in Eastern Europe. The second part of the thesis, including the coming three chapters, will analyse indicators of subjective well-being.

In this chapter I will present an introduction into the theoretical and empirical concepts of subjective well-being. There is a clear distinction, as I will argue, between measures of life satisfaction and measures of satisfaction with specific domains of life. Following this, the happiness or the unhappiness of Hungarians will be discussed, both in an international perspective and also in Hungary during the economic transition. I will seek to understand the relationship between various measures of satisfaction, primarily between indicators of life satisfaction and that of the so-called domain satisfactions, using survey data. How

much particular aspects of life matter in people's assessment of their overall well-being? I will also assess whether there is any systematic difference in people's assessment of their life as it has been so far and that of their future perspectives. This analysis will include the analysis of different labour market groups. Finally, I will examine whether transition had significantly altered what things make people satisfied.

5.1 SUBJECTIVE WELL-BEING: THEORY AND MEASUREMENT

Measures of satisfaction are widely used indicators in social indicators research, starting with a few pioneering studies on the US in the 1960s and 70s (Cantril 1965; Andrews and Witney 1976; Campbell, Converse and Rodgers 1976). Quality of life has been increasingly conceived as having a 'subjective' dimension (Veenhoven 1996). This is also clearly conveyed by the growing body of literature on satisfaction in the journal *Social Indicators Research* during the past decade. 'Subjective' refers to the fact that criteria for judgement may vary from person to person, opposite to 'objective' quality of life measures, where measurement is based on external standards, on observable criteria. Subjective quality of life includes a broad range of issues related to how people appreciate their lives. For example, how safe their neighbourhood is, how close they feel to be to their family members or how satisfied they are with their income, job or health. Satisfaction measures seem to have a particular importance, because they can be regarded as aggregates of a series of personal concerns related to a specific aspect of life, or to life as a whole.

Life satisfaction as a proxy for utility

The study of satisfaction in Hungary has a brief history, since there have been very few surveys of this sort before the late 1980's. As one of the first analysts of subjective well-being, Andorka, writes: "Under the Communist system few surveys included questions on satisfaction, psychological well-being or manifestations of anomie and alienation. The official ideology claimed that every, or almost every, member of the society was satisfied, enjoying psychological well-being. By definition anomie and alienation were non-existent... (1999, p. 147)". Studies on satisfaction, following the tradition of Andorka, tend to discuss satisfaction, alienation and anomie together (Andorka 1993; Spéder, Paksi and Elekes 1998; Andorka 1999). Unfortunately there is little explicit discussion of the

theoretical origin of the notion of satisfaction in these writings, so it is not clear whether this joint presentation implies that they think about satisfaction as an alternative measure of psychological well-being next to alienation or anomie, or satisfaction is just one of the empirical measures of alienation or anomie.

Satisfaction, however, is by no means interchangeable with either alienation or anomie. Neither can alienation and anomie be blended together. Alienation, the concept of Marx, and anomie, that of Durkheim, despite their commonly emphasised communalities, are rather different¹⁰⁰. Durkheim, using a biological analogy, regarded society as a series of organs that must be in contact with each other in order to function well. 'If the division of labour does not produce solidarity it is because the relationship between the organs is not regulated; it is because they are in a state of *anomie*' (1984, p. 304). Anomie, according to Durkheim, is the result of a situation where the development of rules and regulations has not kept pace with the rapid development of the economy over the past two centuries. Anomie is not just a social phenomenon, it is also an individual's state of mind. In his work on suicide he distinguishes the so-called *anomic suicide*, which may occur in economic crisis. It "results from man's activity's lacking regulation and his consequent sufferings" (1952, p. 258). Marx, writing at an earlier period of the nineteenth century emphasised a different aspect of capitalist development, focusing on the worker as a seller of his labour. "The alienation of the worker in the capitalist economy is founded upon this disparity between the productive power of labour, which becomes increasingly great with the expansion of capitalism, and the lack of control which the worker is able to exert over the objects which he produces (Giddens 1971, p. 11)."

Alienation and anomie, although both refer to a subjective social condition and a state of mind, are however radically different in their criticisms of the society, and their underlying assumptions on human nature. As Steven Lukes notes:

The doctrines of Marx and Durkheim about human nature are representative of a long and distinguished tradition of such doctrines in the history of political and social theory. [...] Durkheim sides with Hobbes and Freud where Marx sides with Rousseau and

the Utopians. For the former, man is a bundle of desires, which need to be regulated, tamed, repressed, manipulated and given direction for the sake of social order, whereas, for the latter, man is still an angel, rational and good, who requires a rational and good society in which to develop his essential nature – a “form of association in which each, while uniting himself with all, may still obey himself alone”. For the former, coercion, external authority and restraint are necessary and desirable for social order and individual happiness; for the latter, they are an offence against reason and an attack upon freedom (1977, p. 84).

Thus, both of these concepts formulate a problem, which is only partly an individual level problem, and which is deeply embedded in social structure, and express a malfunctioning of this structure. In contrast, satisfaction in itself is purely an individual level measure. It has no a priori assumption referring to the nature of the individual or that of the society. Although satisfaction may be possibly used as a measurement of alienation or anomie in some ways, this would require a substantiating social theory, with clearly stated starting hypothesis. Based on the discussion before I can conclude that alienation and anomie *per se* are neither necessarily synonyms of satisfaction, nor provide a *direct* theoretical background for it.

General life satisfaction may be used, and is sometimes used, as a synonym for happiness. Happiness, due to humanity's long term occupation with its understanding, has a substantial theoretical background. What is happiness, however? How do we define it? Is it measurable? Is it comparable across people? One major philosophical tradition stems from Aristotle. Aristotle defined happiness, 'eudaimonia' as something objective. It is an 'object of desire and choice because it is desirable and choiceworthy, not simply because it is desired or chosen.[..] It is a state of being, not a mere feeling or experience.' (Rasmussen 1999, p. 3). A good life thus may or may not be accompanied by feelings or experiences. According to Aristotle it also must come through an individual's own effort, and not as a

¹⁰⁰ These notions have led to an extensive literature of conceptual refinement and empirical research. Most of this, however, seems to be contradictory, and, as Lukes argues, much of the original meaning of these concepts has been lost. Therefore I follow his approach and try to present the original notions as defined by Marx and Durkheim. For more on various definitions of alienation and anomie, see the essay of Lukes (1977).

result of factors beyond an individual's control, such as sheer good luck. It means the active development of one's virtues in order to attain the 'good life'.

Aristotle's concept is thus rather different from self-reported accounts of happiness. It seems to share a common core with Sen's approach, both of them being 'objective', claiming that there are objects with inherent value. Further to this, both of these believe that it is possible to identify these objects and make a strong case for it themselves. A contemporary, pragmatic interpretation of Aristotelian happiness, however, seems to be rather problematic, first of all due to its universalistic nature, which seems to be in sharp contrast with our pluralistic societies. Also, it may seem paternalistic. Therefore, instead of trying to understand who are those who live a 'good life', we may need to limit ourselves to understanding who live a life which they experience to be 'good', a life which brings them happiness. This life thus does not necessarily bring happiness for others.

Self-rated happiness, or more precisely self-rated satisfaction is the definition of happiness used in this study. This may be called a measure of subjective well-being, as discussed in the previous chapter. Subjective well-being is an individual's own assessment of his or her well-being. Its usefulness as a complementary measure to objective measures was acknowledged by Sen himself as a valid operationalisation of his approach (1987), as already discussed in chapter 1. The primary merit of the use of self-reported measures is that it avoids paternalism, the influence of external coercive powers in defining what is desirable or good. Further to this, economists tend to argue that individuals should be left alone because they generally know what is best for them. This assumption, however, has been challenged on many grounds¹⁰¹. One of the forerunners of incorporating psychological theory into economics, Tibor Scitovsky argues that individuals tend to incorrectly estimate the future benefits of their consumption choices, thus tend to make suboptimal choices at present (1992). According to Scitovsky this may lead to over-investment into 'comfort', for example food, and under-investment in 'pleasure', such as

¹⁰¹ Following Scitovsky, an outstanding economist himself, many others have challenged "the economists' representation of the consumer as someone whose tastes are set, who knows what he wants and fails to achieve it only for lack of means" (Scitovsky 1992, p. 11).

culture¹⁰². Recently, others echoed similar views (Frank 1999; Lane 2000). In sum, it seems that the soundest basis for using self-reported measures of happiness lies in the inherent value of freedom, rather than the belief that people generally know what is good for them.

The study of happiness has a relatively brief history. It may have been George Gallup in 1946 who had first the idea of asking people about their happiness. The systematic exploration, however started in the 1960's with the works of Gerald Gurin, Hadley Cantril and others (Gurin, Veroff and Feld 1960; Cantril 1965; Bradburn 1969). Since then there has been an extensive conceptual development, although primarily centred around measurement issues [Diener distinguishes not less than 18 different measurement scales in his review article (1984, p. 546)]. Happiness has been criticised for being too vague a concept. The emerging theory of happiness is, according to some, 'still considered to be in a primitive state' (Lane 1991, p. 433). However, the involvement of economists and psychologists, and their interaction has substantially advanced this theory since the 1980's.

One major theoretical foundation for happiness stems from economics¹⁰³: an increasing number of economists draw link between happiness and the notion of utility. These authors argue that the earliest notion, utility, interpreted as pleasure or pain by Bentham, has been unjustly set aside in economic writing from the nineteenth century in favour of 'utility as revealed choice'¹⁰⁴. Returning to 'cardinal utility', or in the terminology of Kahneman and his co-authors, 'experienced utility', would (1) make interpersonal comparisons of utility possible (Ng 1997), (2) enable economics to incorporate systematic elements of human behaviour into conventional analysis (Rabin 1998). This can be done,

¹⁰² He sets out a conceptual distinction between 'comfort' and 'pleasure', describing in psychological terms 'comfort' as a state which stems from a *level* of arousal *close to* its optimum, and 'pleasure' as a *change* of arousal towards the optimum (Scitovsky 1992, p. 71). He argues that by too much love for comfort people actually deprive themselves from pleasure. In a simple example, the pleasure of eating is greater for those who are hungry, so those who avoid getting hungry by continuously eating snacks would hardly enjoy a meal. Scitovsky's distinction seems to be in line with two main psychological theories. The so-called '*telic theories*' hold that 'happiness is gained when some state, such as a goal or need, is reached' (Diener 1984, p. 562). In contrast, '*activity theories*' maintain that happiness is a by-product of human activity, of effort (for more see Diener 1984). Thus, it seems to me that the notion of 'comfort' derives from 'telic theories', and that of 'pleasure' is associated with 'activity theories'.

¹⁰³ Psychological theories may also provide a useful, although yet not 'sophisticated' enough background for subjective well-being. For a review of such theories, see (Diener 1984).

¹⁰⁴ Cardinal utility was assumed to be directly measurable, and comparable across individuals. This first notion of utility was later ousted by ordinal utility, which relaxed this assumption to one where utilities can only be ranked for an individual, not directly compared. This more individualised notion, also denying the comparability of different individuals' states, made interpersonal comparisons of welfare more problematic.

because 'experienced utility' is measurable (Kahneman and Varey 1991; Kahneman, Wakker and Sarin 1997).

Some may argue that empirical measures of happiness express rather ad hoc individualistic accounts of mental states. These reservations seem to be eroded by the findings of existing empirical studies. Although individuals' responses vary, reports of happiness show rather similar patterns across various populations. There is much evidence on the consistent correlation of demographic and other environmental factors with happiness. For example, education, income, marriage have positive effects, while unemployment and divorce are shown to have negative ones (see e.g. the review by Argyle 1999). A comparative analysis also shows that the correlates of happiness are similar across nations of Western Europe and the United States (Di Tella et al. 2001).

Until this point I have used the terms of happiness and general life satisfaction interchangeably. Some may argue that happiness seems to be less related to want satisfaction than the notion of satisfaction itself, and it may more reflect an individual's assessment of good life and self-realisation in general. This reservation seems relevant for specific measures of satisfaction, such as satisfaction with financial situation or with family life, analysed in the forthcoming chapter. General life satisfaction, however, in my view, expresses a rather similar self-assessment of life as happiness. This seems to be supported by empirical evidence: correlates of happiness and that of life satisfaction seem to be similar across Western European nations (Di Tella, MacCulloch and Oswald 1999, p. 5).

Satisfaction with specific domains of life

There is a clear theoretical distinction between satisfaction with life in general and that of with specific domains of life. While the former is a well-studied subject of philosophy and recently also economics (as 'experienced utility'), there is no clear theoretical background behind the second one. Domain satisfaction, for example satisfaction with income, job or marriage, is first of all an empirical concept. We might think of these specific measures as 'utils', units of utility, which add up to 'experienced utility', general life satisfaction. For this, however, we need to assume that they are additive and they determine life-satisfaction. This seems to be a rather strict condition, which is challenged by empirical evidence. First of all, the direction of causality is unclear. It seems that general satisfaction

just as well explains specific domain satisfactions as vice versa, and also, an external factor, personality may partly explain both (Diener 1984, see also Figure 6.2 in the next chapter). A jolly disposition, or a general state of happiness may just as well be the cause of someone's contentment related to her income, job or marriage. Also, a cooperative character may find it easier to get on with others than a confrontational one, which may explain why such person may feel more satisfaction in various aspects of life.

Is satisfaction a meaningful empirical measure? Satisfaction measures the 'result' of objective conditions in people's minds, thus seems to be a major step towards assessing 'ends' rather than 'means'. This subjective appraisal is particularly intriguing since early studies have shown how small actually the relationship is between objective conditions and their subjective appreciation (e.g. Campbell et al. 1976). Studies of satisfaction can address the causes and correlates of satisfaction, thus can help to understand this 'puzzle'. If subjective measures, however, are only little correlated with objective qualities, does this mean that they are arbitrary constructs? If the judgment is entirely based on the individual, how reliable is this measure?

The validity of these measures has been widely tested. They seem to show a considerable temporal stability (the correlation coefficient was in the range of 0.5 to 0.7 over a period of several years for global well-being, see Suh, Diener and Fujita 1996, pp. 1094-5). The measures are shown to converge with other methods of well-being measurement, such as reports of significant others, number of positive and negative events recalled, and clinical interviews (Sandvik, Diener and Seidlitz 1993). The moderately strong stabilities also imply, however, that these measures are exposed to mood states or comparison effects (for a recent review see Schwarz and Strack 1999). A recent good event, such as the victory of the favourite football team, or an environmental condition, for example how pleasant the experimental room is, were shown to have an impact on people's reported subjective well-being. Similarly, individual's satisfaction is somewhat influenced by both social comparison, how other people are perceived to live, and intra-individual comparison, such as one's own previous experience. There is a considerable difference in how these may alter different measures of subjective well-being. General well-being seems to be more exposed to mood states, momentary feelings, while judgements of domain satisfaction may be based on intra- and inter-individual comparisons (p. 76).

Although some economists assume that people have essentially the same desires and they only differ in their opportunities (Stigler and Becker 1977)¹⁰⁵, this view seems problematic. As shown by Elster, people may cease to desire what they cannot get, as in the story of the fox and the sour grapes (Elster 1983). Similarly, Sen also notes that the poor may have diminished expectations. This phenomenon is referred to in the psychology literature as cognitive dissonance reduction, referring to a person's adjustment of his attitudes in order to reduce the disparity between his attitudes, beliefs or actions. If, however, we can assume that people differ in their desires and preferences as well as in their opportunities, this seems to pose a potential problem to the interpretation of personal accounts of well-being.

A further problem may be related to interpersonal comparability of these measures. This issue has evoked intense and rather extensive discussions in welfare economics. From our point of view one specific issue seems to be the most relevant. Maximising economic welfare in standard economic models means a state when marginal utilities are equal. If in a real life situation, however, people have different endowments and desires at the starting point, this criterion may attach equal weight to the fulfilment of luxurious tastes of the rich, and to meeting basic needs of the poor. Although this seems to be a valid reservation, there is a strong counter evidence in the literature on subjective well-being.

It has been widely demonstrated in the empirical literature that levels of SWB are strongly correlated with the level of resources. Countries with higher level of incomes have been shown to have higher levels of SWB than poorer ones (Diener, Diener and Diener 1995), and rich individuals within a single country are happier compared to those who are less well-off (see the reviews of e.g. Easterlin 1974; Diener 1984; Veenhoven 1984; Argyle 1999). Money seems to buy happiness¹⁰⁶, the poor are indeed more dissatisfied than the rich. Beyond this, others have demonstrated that objective well-being also buys satisfaction, in other words there is systematic relationship between objective well-being and subjective one (Campbell et al. 1976; Allardt 1977). This implies that (1) there is clearly

¹⁰⁵ Stigler and Becker argue that "...tastes neither change capriciously nor differ importantly between people. On this interpretation one does not argue over tastes for the same reason that one does not argue over the Rocky Mountains - both are there, will be there next year, too, and are the same to all men." (p.76)

¹⁰⁶ This statement implies causality, that actually income causes happiness and not the other way round, and also that the correlation is not spurious, in other words it is not attributable to the effect of a third factor, e.g. health, which could explain both happiness and the level of income. This issue has been discussed by e.g. Veenhoven, who argues that most likely causality goes from income towards happiness. For example, those who have surpassed their fathers on the social ladder are not happier than average (1984, p. 195).

an element of need-satisfaction of SWB beyond pure 'comparison' and contextual effects, and (2) that certain needs are universal, there is no full adaptation to disadvantageous situations (Veenhoven 1991; Diener, Sandvik, Seidlitz and Diener 1993).

This relationship between objective quality of life, first of all income, and SWB has two useful implications. First of all, measures of SWB seem to usefully capture certain aspects of differences between individual's opportunities, thus they are valid measures of inequalities of quality of life. Secondly, SWB can provide a useful analytic tool for supporting public policy choices. Understanding causes and correlates of SWB, the policy makers can focus on those aspects of people's lives, which actually make them satisfied. Multivariate analysis can be an essential tool for this, since it reveals how much certain specific environmental factors do contribute to SWB, and also allow us to make inferences about trade-offs between them.

As mentioned earlier, there is clear theoretical difference between specific domains of satisfaction and general life satisfaction. Indicators of domain satisfaction reveal differences in individual's opportunities from a specific point of view. General measures of SWB, on the other hand, provide proxies for people's overall happiness or life satisfaction and offer a potential way for assessing public policy choices. Due to this difference, they will be analysed separately. The next chapter will analyse people satisfaction with specific areas of their lives, then will examine the relationship between measures of 'domain satisfaction' and measures of overall life satisfaction. Finally, chapter 7 will analyse the relationship between individual characteristics and SWB, and using life satisfaction data, it will try to identify the winners and the losers of the transition process.

Data and methods

The Hungarian data for subjective well-being provide full comparability, since the questionnaires for 1992 and 1998 contain nine identical questions. These questions investigate levels of satisfaction, which is regarded as providing more specific and probably

more reliable information than measurement of overall happiness¹⁰⁷. They are therefore also more suitable for our purposes, especially for the comparisons of objective and subjective measures of well-being.

'Please, say how satisfied you are with the following things. If you are not satisfied at all, say 0, if fully satisfied, answer 10. How satisfied you are with your

- 1. life up till now, the course of your life?*
- 2. future prospects?*
- 3. living standards?*
- 4. relationships within the family?*
- 5. health?*
- 6. job?*
- 7. flat?*
- 8. housing neighbourhood?*
- 9. income?'*

The individual thus evaluates his or her own satisfaction related to each aspect of life listed above on a scale from 0 to 10. This numeric representation of satisfaction provides an interval-ratio measure, which enables the analysis to use more advanced statistical techniques, and also interpret the mean as such. The approach has probably been used first in the classic study of Cantril, and he called it the 'ladder device' (Cantril 1965). His method was similarly one with a scale from 0 to 10, where actually the individual defined what the extremes meant for him or her. The difference is that Cantril explicitly asked the individuals to reveal what the 'best' and the 'worst' meant, and only then requested the assessment of their current situation by actually pointing to the specific point on the ladder. He gave the name 'Self-Anchoring Striving Scale' to his invention. Another widely used measurement scale in attitude surveys is an ordinal level measure. This means categorical measurement, where the categories can be ranked, but they have no explicit numerical value, thus the distance between points and the mean has no meaning. Such a measure can be found in the British Social Attitudes Survey, which investigates if people feel 'very happy, fairly happy, not very happy, not at all happy' (Jowell, Curtice, Park and Thomson 1999).

The analysis presented here will be restricted to the adult population, as explained in Appendix A. In addition, as in previous chapters, those cases, which were based on the so-

¹⁰⁷ Satisfaction with specific domains of life is less exposed to 'mood states' compared to judgements on life in general. A result of a favourite football team, an ice-cream before the interview, or the colour of the room seems to influence responses on overall happiness (Schwarz and Strack 1999).

called proxies and those who denied response (and therefore only were mentioned in the household questionnaire by another member of household) were excluded. These cases had missing values for all measures of satisfaction. The resulting adult sample sizes (5424 in 1992 and 3827 in 1998) are large enough to provide a suitable basis for detailed analysis of the relationship between individual characteristics and levels of satisfaction. Weights have been used in all steps of the analysis in order to allow for corrections of the sampling design and to improve the fit of the sample to the original population.

The estimation will also use a pooled dataset, consisting of the observations of both the 1992 and the 1998 survey. This may be called 'pooled cross-sectional time-series data', although normally such time-series data are created from more than two cross-sectional datasets. The pooled dataset consists of 9251 observations. Since the sample sizes in 1992 and 1998 were not equal, a special weight variable has been created in order to generate equal sub-samples. In this way, the probability of an observation to be included in the pooled sample is the same irrespective of whether it originally belongs to the 1992 or the 1998 sub-sample. Using this dataset, I will study the impact of transition. For this, the model will include a year dummy, t . This will control for 'external shocks', for example inflation, and will also control for changes in the composition of the population, for example labour market changes, which have occurred between 1992 and 1998.

5.2 'PESSIMIST' HUNGARIANS: A MYTH?

A widely supported claim among Hungarian social scientists that Hungarians are far more pessimistic and dissatisfied than other nations (Andorka 1993; 1994a; Spéder et al. 1998; Andorka 1999; Róbert 1999). Andorka assumes that the 'grave dissatisfaction' can be at least partly explained by the 'widespread' alienation and anomie in Hungarian society (1999, p. 151). Elsewhere, he talks about the crisis of alienation (1993). He also attributes this crisis to be one of the main factors in the collapse of communism. 'The nonmaterial conditions of Hungarian society [...] worsened gradually, but continuously and resulted in a general crisis of values and norms – anomie and/or alienation – which finally delegitimized the whole system.' (1994b, p. 51). Going beyond this, elsewhere he explicitly states that there was a causal relationship between the increasing anomie and alienation and the change of the system. (1992, pp. 317-8).

There are serious problems with this argument, however. Firstly, and most importantly, such statements seem to be rather bold, since there are actually no time series on measures of alienation, anomie, or even satisfaction. Thus, although this statement implies it, we have no information on whether there was an escalating trend of 'distress' during Communism, which would have peaked in the years just before the collapse of the political system. Alternative measures, such as suicide and alcoholism, do not seem to provide a satisfactory evidence for a causal relationship. The suicide rate, although outstanding in international comparison, peaked in 1984, and then stagnated until the major political changes in 1988. Alcoholism seems to have stopped increasing around 1980, then slowly declined before the transition (Elekes and Paksi 1999, p.142). A second major shortfall of the argument is that it uses very scant international comparison. The collapse of the Communist political system was not an isolated phenomenon in Hungary. If alienation and anomie are possible major factors in this, than it needs to be discussed in the context of the whole region. Has Eastern-Europe in general had a severe crisis? Was Hungary specific? If it was, why? The presupposition needs to be tested in detail. At this moment, the claim that the crisis of alienation and anomie was a major cause of the collapse of Communism, is unsubstantiated.

A further sloppiness of some arguments is that there is no theoretical distinction between various measures of satisfaction. Financial satisfaction, for example, is at times mentioned as a proxy for general 'pessimism'. The New Democracies Barometer survey series (e.g. Rose and Haerpfer 1992; 1994), measuring satisfaction with 'economic situation', is used as a supportive evidence for the outstanding pessimism of Hungarians compared to neighbouring countries (Spéder et al. 1998, p. 509). This, in my view, is problematic from various points of view. First of all, financial satisfaction is just one element of general life satisfaction, which we may call with some extrapolation general 'optimism' or 'pessimism'. The correlation is prevalent, according to the international literature (see later), but moderate. Secondly, satisfaction with the economic situation is highly driven by objective circumstances, for example past levels of income and comparative change. The outstanding nostalgia towards the past and dissatisfaction with the present may be explained by 'goulash Communism', namely that the Hungarian level of consumption was higher than elsewhere in the Socialist block. The relative dissatisfaction of Hungarians with

their economic situation may thus well be attributable to their 'realism', rather than 'pessimism'.

It seems thus more appropriate to speak about a specific indicator, suicide instead of alienation, anomie or general dissatisfaction. Hungarians have indeed been reported to have the highest suicide rate in Europe in the mid 80s (e.g. Retterstøl 1993, p. 26). These statistics, however, did not have any data on the Soviet Union. As recent data show suicide in many states of the ex Soviet Union has increased dramatically in the early years of transition (UNDP 1999b, Table 4.4). As a result, the Baltic states and Russia had suicide rates much above the Hungarian level (see Figure 2.7 earlier). Suicide, however, is a rather crude measure of 'unhappiness'. It is subject to numerous measurement and methodological problems, which I cannot discuss here in detail. What really interests us is whether Hungarians are more unhappy than the rest of Europe?

International evidence: Hungarian 'unhappiness' refuted

Hungarians are not less happy than other nations in *Central-Eastern Europe*. To the contrary, they are actually more so than some others. About twice as many people say themselves to be very happy in Hungary than in the neighbouring Slovakia, Romania or Ukraine (see Table 5.1). The real division line thus lies not between Hungary and other countries in the region, but between Eastern and Western Europe. We may say, that there is a new 'iron curtain', an 'iron curtain of unhappiness', which separates a happier part of Europe from 'less happier lands'¹⁰⁸. This is indicated by the higher share of 'very happy' or 'satisfied' inhabitants in Western European nations compared to that of Eastern European ones¹⁰⁹. This difference cannot be purely attributed to simple cultural differences of the notion of happiness or life satisfaction.

¹⁰⁸ Shakespeare's phrase from Richard II, where John of Gaunt in his 'scepter'd isle speech' refers to the English as a 'happy breed of men', protected by the island as a natural fortress 'against the envy of less happier lands'.

¹⁰⁹ Although the share of 'very happy' people in Italy and Portugal is smaller than that of Poland, if we compare the 'satisfied', we find that indeed more Italians and Portuguese are satisfied than Polish.

Table 5.1 Happiness and satisfaction in Europe

Western-Europe	% very happy*	% satisfied**	Central- Eastern-Europe	% very happy*	% satisfied**
Iceland	42	85	Poland	14	57
Ireland	42	80	Slovenia	11	47
Netherlands	40	85	Hungary	11	44
Switzerland	38	86	Croatia	8	
Great-Britain	38	74	Bulgaria	7	25
Belgium	37	79	Czech Rep.	6	50
Denmark	36	86	Romania	6	44
Sweden	36	84	Slovakia	6	
Austria	30	64			
Norway	29	78	CIS		
France	23	59	Russia	6	32
Finland	20	79	Belarus	5	33
Spain	20	66	Ukraine	5	
Germany	16	71	Estonia	4	45
Italy	13	71	Lithuania	4	44
Portugal	13	63	Moldova	4	
			Latvia	3	40

Source: World Values Survey: 1996 (happiness) and 1990-93 (satisfaction) (World Database of Happiness; Inglehart, Basáñez and Menéndez Moreno 1998)

*'Taking all things together, would you say you are very happy, quite happy, not very happy, or not at all happy?'

** 'All things considered, how satisfied are you with your life as a whole these days?' Ten-point scale: 1=dissatisfied, and 10=satisfied; % 'satisfied' – codes 7 to 10

A similar East-West divide seems to exist when using other measures, satisfaction with life or the Bradburn Affect-Balance Scale¹¹⁰. The number of those who are satisfied with their lives is much lower in Eastern Europe than in the West. While in Western Europe in most countries over 2/3rd of the population say themselves to be satisfied, in Central-Eastern Europe this number, with the exception of Poland and the Czech Republic, is less than

¹¹⁰ Index of 10 questions on specific affects in the recent past

'During the past few weeks, did you ever feel (Yes/No)

- Particularly excited or interested in something?
- So restless that you could not sit long in a chair?
- Proud because someone complemented you on something you had done?
- Very lonely or remote from other people?
- Pleased about having accomplished something?
- Bored?
- On top of the world?
- Depressed?
- That things were going your way?
- Upset because someone criticized you? '

[Positive affects: items 1,3,5,7,9/ Negative affects 2,4,6,8,10/ Scoring Positive Affect: yes = +1, no = 0. Negative Affect: yes = -1, no = 0. Computation of Affect Balance Score (ABS): Positive Affect Score, minus Negative Affect score (range -5 to +5).]

half. Although Hungarians seem to be less satisfied than the Poles or the Czechs according to the 1996 data, they remain on the level of Romania and the Baltic states. A similar division seems to exist when people are asked about recent positive and negative affects in their lives¹¹¹. In sum, based on new survey evidence it seems clear that pessimism or disillusionment of people about their own lives is not outstanding in Hungary.

Growing optimism towards the future

International evidence suggests that people tend to report at any given point in their life cycle that they are happier in their present than in the past and think that they will be happier in the future than at present. In an early classic study, Cantril compared a sample of over 20,000 individuals from a rather heterogeneous set of thirteen countries, including not just developed countries such as the United States or Japan, but also Communist ones, such as Poland and Yugoslavia, and also developing nations, for example India and Brazil (1965). He has found that on average people in all the countries consequently rated their future the highest, followed by their present, then by their past (pp. 365-377). The future was actually measured as people's assessment of their situation in five years' time. Similarly, 'past' was conceived as their standing five years ago¹¹². This systematic ranking of personal future, present, and past has been also confirmed in a later study on a sample from the US (Andrews and Witney 1976, p. 325).

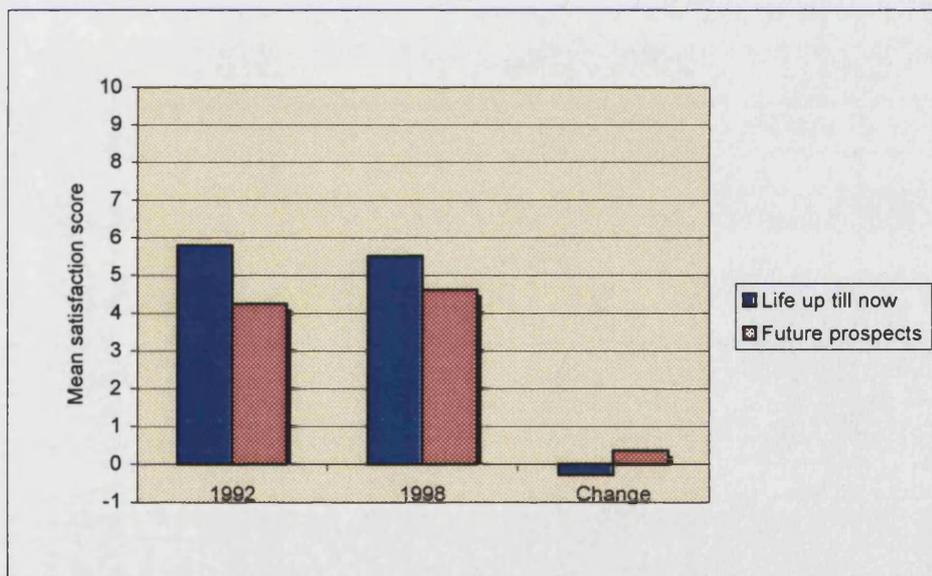
In contrast, evidence from Hungary shows *a reverse order of these beliefs*. Using a scale from 0 to 10 for evaluating levels of satisfaction, the analysis found that *people were consistently more satisfied with their life up till now than with their future prospects* (see Figure 5.1). The differences of these means have been tested and found to be significant.¹¹³ Thus, people were more satisfied with their previous lives, which presumably also implies the years before

¹¹¹ The mean score for Hungarians was 0.86 in 1990, while it was 0.76 in Czechoslovakia, 0.71 in Romania, 0.33 in Russia, in contrast to e.g. 1.70 in Great Britain, 1.77 in Austria and 2.90 in Sweden (World Database of Happiness). This scale, however, has been criticised in the literature, for example for measuring only the simple occurrence of feelings, not their intensity or frequency. (For more see Diener 1984)

¹¹² As mentioned in the previous chapter, Cantril used a ladder device, called the Self-Anchoring Striving Scale, ranging from 0 to 10. The questions were the following: *Here is a picture of a ladder. Suppose we say that the top of the ladder (POINTING) represents the best possible life for you and the bottom represent the worst possible life for you. Where on the ladder (MOVING FINGER RAPIDLY UP AND DOWN LADDER) do you feel you personally stand at the present time? Where on the ladder would you say you stood five years ago? And where do you think you will be on the ladder five years from now?*

transition. Probably the prospects of the economic transition caused their gloominess about their future prospects in 1992. By the late 1990s, experiencing the recession of transition and the fall of their real incomes, but also some signs of recovery, people's self-assessed past lives were gloomier than in 1992, but their judgement of their future showed clear signs of optimism. These *changes* in the *level* of life satisfaction over transition, thus do not seem to validate general claims about wide disappointment with transition, or people's 'gritting the teeth' (Róbert 1999). Strikingly, however, people still rated higher their past than the future awaiting them, even in 1998. Hungarians in the 1990's tended to find the 'golden days' of their lives in their past. Does this mean that people give preference to the security of the Communist days over the riskier Capitalist system? Or that have they used up their savings during the years of transition, and now they face a lower future consumption level?

Figure 5.1 General measures of satisfaction and their change over transition in Hungary, 1992 & 1998



Can we explain the difference between past and future satisfaction with that people think about their personal past in a qualitatively different way than about their 'future prospects'? Is it possible for example that they include personal factors, such as marriage, or friends in

¹¹³ The difference between the sample means was tested for both 1992 and 1998, and found significant at 1% level.

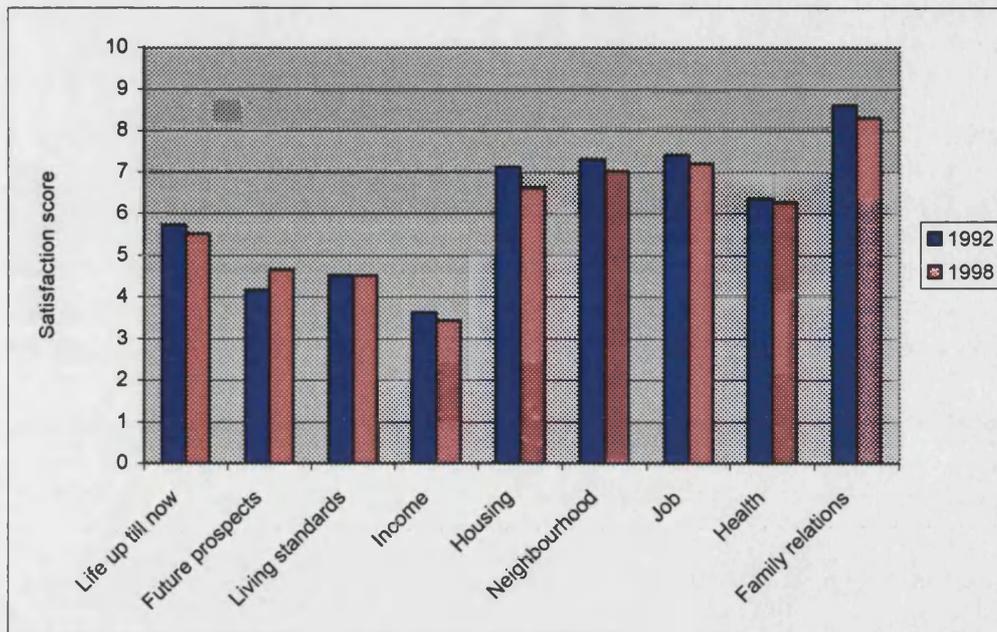
past life, and think of their future in a more materialistic way.¹¹⁴ This latter explanation may be in line with Scitovsky's argument on how actually people misjudge what would bring them future happiness and consequently make false choices (1992). Thus for example they may base the assessment of their future on material 'comforts', but actually when they look back to their past, they may see that rather different things brought them real pleasure. "People presumably rate their happiness on the basis of what they remember having felt in the past, and it is quite possible that they should only remember the highlights; the pleasure of stimulation and the pain of discomfort, taking for granted and forgetting what I have called comfort, that is, the absence of both pain and pleasure" (1992, p.137). Unfortunately, we cannot really know the answer. The explanation for the preference of the past over the future, however, may be attributable to differing personal interpretations of these concepts, rather than simply general social 'pessimism'. How do specific domain satisfactions contribute to our understanding of this issue? To what extent does satisfaction with specific aspects of life explain the overall level and the variation of general life satisfaction? These issues will be addressed in the forthcoming sections of this chapter.

Discontent with income, delight with family

People are generally dissatisfied with their income, unlike with their family life or with their job. Comparing specific domains of satisfaction, which use the same measurement scale from 0 to 10, there is a striking difference between sentiments towards income compared to other aspects of life. People in general say that they are dissatisfied with their level of income; the average score is below the mid-scale point (see Figure 5.2). Health, work and housing seem to bring rather positive feelings for the majority of the people. The real source of contentment, however, is related to relationships within the family. Most people believe that their personal relationships bring them nearly as much satisfaction as they could possibly expect.

¹¹⁴ Recall that, as presented earlier, the wording of the questions referring to the past and to the future is different; they investigate satisfaction with 'life up till now' and 'future prospects'. Both of these are different from the classic Cantril question, cited before, where people are asked identical questions related to their lives 'five years ago' and 'five years from now' on. This wording difference between Cantril and the Hungarian survey might partly explain the divergence between these two results.

Figure 5.2 Average level of satisfaction in various domains, 1992 & 1998



Levels of satisfaction declined between 1992 and 1998 in most domains of life. People have become less satisfied with their income, housing, neighbourhood, family relations, health and job. These changes, with the exception of neighbourhood, are significant at 5% level. The patterns of change in general measures of SWB are more varied. Satisfaction with life so far has declined, while people's sentiments about their future prospects have improved. Transition thus seem to have brought increasing general discontent for the people. Unfortunately we do not know how it fits into a long-term context, because pre-transition data for measures of satisfaction are not available.

At first sight it may appear puzzling that although all possible 'dimensions' of living standards, such as income, housing, neighbourhood, health and job satisfaction decline over time, satisfaction with living standards itself remains on the same level. This may imply that there is a major unobserved element of living standards, which is not measured here, but contributes substantially to people's well-being. Such examples might include household amenities, savings or 'freedom'. This finding, might also provides a confirmation of the evidence in the literature discussed earlier: that we cannot perceive general measures of satisfaction as additive functions of specific measures in various domains of life (Diener 1984). Instead of a 'bottom-up' approach, it is equally possible that

there is a 'top-down' effect, or an unobservable variable, personality, which causes spurious correlations.

5.3 SOURCES OF LIFE SATISFACTION

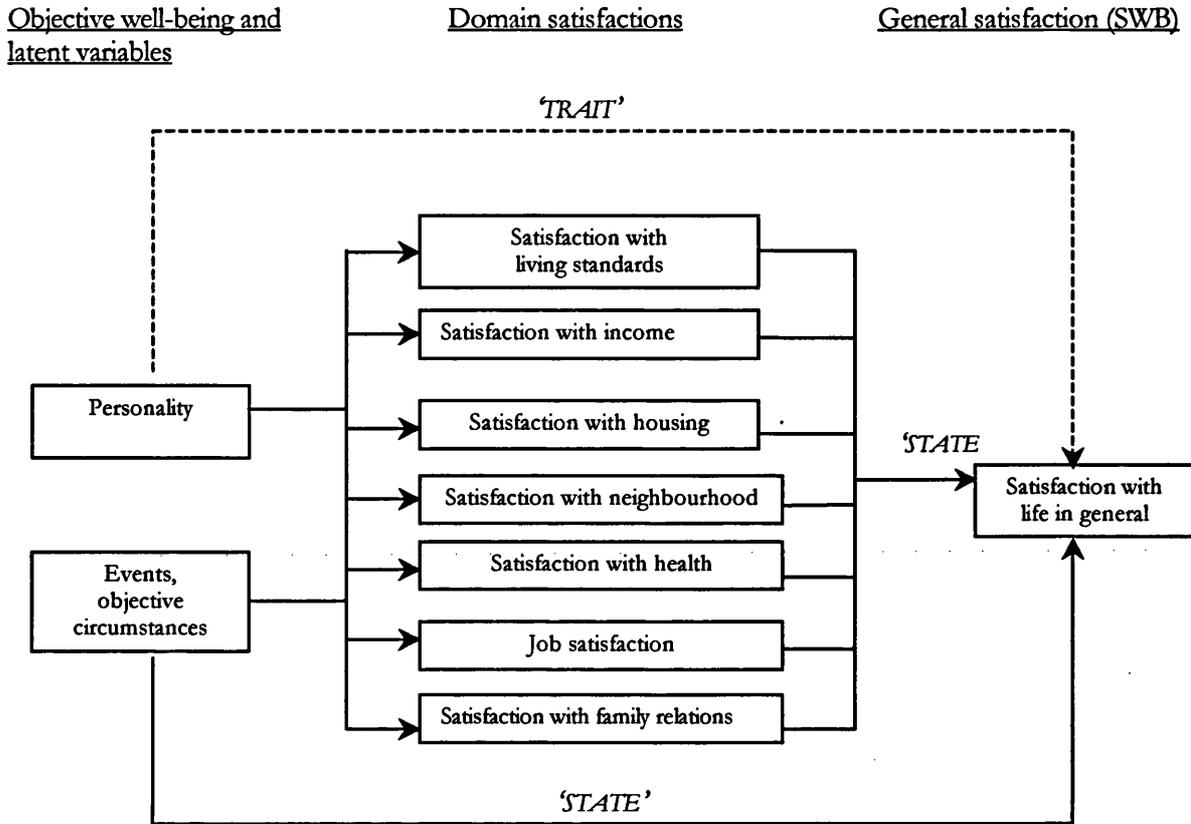
What makes people satisfied in general? Scitovsky argues that it is actually 'novelty' that brings satisfaction to people and challenges the simple claim that the higher someone's income is the more satisfied they should be. Income can provide stimulation, but it is actually a rise, a *change*, which primarily does so, he advocates. Further to this, he asserts that income is not the main source of contentment. 'Most of our stimulation comes from other people, and in ways and situations that have little or nothing to do with economics' (1992, p.137). Arriving to a similar conclusion, Robert Lane argues it is 'companionship' rather than money, which makes people happy (2000). Robert Frank strongly criticises people's luxurious consumption, 'conspicuous consumption', in the United States (1999). In many ways this argument seems to stem from Scitovsky, his idea of people's overspending on their 'comfort'. All of these provide a challenging critique for economics and in general for policy makers. What is in reality the best way to increase people's well-being? Is the primary concern with issues related to income justified?

What makes Hungarians satisfied? The following analysis will try to contribute to our understanding of this issue. If Hungarians are deeply materialistic compared to other nations, as measured by Inglehart (1997, pp.151-157), then we can expect that income is a major source of happiness for Hungarians, more so than family life for example. Also, there is evidence that in poorer nations financial satisfaction is a stronger correlate of life satisfaction than satisfaction with family (based on a sample of college students in 31 nations, see Diener and Diener 1995, pp.656-657). Similarly, in a Russian student sample, financial domains were significantly stronger correlates of global SWB scales than social domains (Balatsky and Diener 1993, Table VI). I am going to test this presumption first by looking at the relationship between measures of satisfaction. This will show how much satisfaction with specific domains of life associated with general life satisfaction. As a second step, I will identify the partial effects of specific measures of satisfaction on SWB in general.

Framework for explanation: structure of 'happiness'

As mentioned already, in the psychological literature happiness is described both with top-down and bottom up theories (Diener 1984). In the bottom-up approach, small pleasures tend to add up to a general state of happiness. In the top-down theory, general features of a personality influence how a person reacts to events. As Democritus expressed it, “a happy life does not depend on good fortune or indeed on any external contingencies, but also, and even to a greater extent, on a man’s cast of mind” (Diener 1984, p. 565). The debate is often formulated as whether happiness is a trait or a state. The former view emphasises predisposition, a propensity to react in a happy way. For example, a sanguine temperament probably tends to react to events in positive way. The second one holds the importance of many happy moments as a determinant of happiness. A supportive observation in favour of this latter is that certain events are pleasurable to most people. In a longitudinal study, Diener and his co-authors tested the relative importance of life events and personality on predicting SWB. They found, interestingly, that life events have a relatively short-term impact on people’s SWB. In contrast, personality, the level of extraversion and neuroticism predicted SWB over many years (Suh et al. 1996). Consequently, it is clear that there is no single causal model explaining SWB exclusively as a sum of domain satisfactions. In my view, in essence this implies that personality explains levels of subjective well-being, but life events explain more its variation.

Figure 5.3 Overall life satisfaction as 'trait' and 'state'



Subjective well-being thus appears to be both a 'state' and a 'trait'. I have tried to express the difference between these two views in the context of domain satisfaction and general satisfaction. As Figure 5.3 illustrates, personality seems to influence general SWB both directly and indirectly, through specific domain satisfactions. Personality, however, is largely a latent variable. Psychological literature has proven the impact of certain specific personality types, such as extraversion and neuroticism. This proof, however, despite the specific psychological approach, is only partial yet. In this current survey, only rather crude approximations could be used for personality, such as demographic characteristics. This is far too inadequate to estimate a 'true model' on the interplay of domain satisfactions and general satisfaction. Instead, I need to remain with a simpler approach, trying to look at the partial effects of each specific domain satisfaction on general satisfaction. This, however, by no means assumes that domain satisfactions are exogenous variables, which would give a causal explanation for the variation of overall satisfaction.

Relationship between measures of satisfaction: overview

The previous presumption on the qualitative difference between subjective assessment of the past and of the future seems to be confirmed by the survey evidence. Firstly, as we can see in Tables 5.2-3, the correlation between satisfaction with life up till now and future prospects is moderately strong, but it is far from showing a perfect linear relationship. Thus, people clearly make distinctions between these two, the future is not just an extrapolation of their past experiences. Secondly, there is a consequently distinct group of specific satisfaction variables which are more strongly associated with each of the two indicators of general SWB.

Table 5.2 Correlation matrix between various measures of satisfaction, 1992

	Life up till now	Future prospects	Living standards	Income	Housing	Neighbourhood	Job	Health
Life up till now	1.00							
Future prospects	0.53	1.00						
Living standards	0.55	0.60	1.00					
Income	0.37	0.44	0.51	1.00				
Housing	0.32	0.21	0.34	0.23	1.00			
Neighbourhood	0.15	0.10	0.20	0.14	0.47	1.00		
Job	0.30	0.23	0.26	0.32	0.23	0.17	1.00	
Health	0.26	0.31	0.25	0.18	0.10	0.04	0.25	1.00
Family relations	0.27	0.13	0.17	0.07	0.23	0.22	0.20	0.12

Note: shading indicates whether the specific domain has a *higher* correlation with life up till now or with future prospects

Table 5.3 Correlation matrix between various measures of satisfaction, 1998

	Life up till now	Future prospects	Living standards	Income	Housing	Neighbourhood	Job	Health
Life up till now	1.00							
Future prospects	0.65	1.00						
Living standards	0.63	0.57	1.00					
Income	0.43	0.46	0.55	1.00				
Housing	0.41	0.32	0.44	0.29	1.00			
Neighbourhood	0.29	0.21	0.28	0.19	0.52	1.00		
Job	0.41	0.34	0.32	0.34	0.27	0.24	1.00	
Health	0.33	0.41		0.23	0.18	0.12	0.24	1.00
Family relations	0.34	0.24	0.23	0.10	0.28	0.30	0.25	0.18

Note: shading indicates whether the specific domain has a *higher* correlation with life up till now or with future prospects

What are the relatively more important associates of satisfaction with life so far compared to that of future prospects? The assessment of life up till now seems to be more associated

with satisfaction with housing, neighbourhood, job and family relations (indicated with shaded cells in Tables 5.2-3.). Satisfaction with living standards, income and health on the other hand, seems to be relatively more associated with future prospects. This pattern consequently prevails in both 1992 and 1998. Thus, it seems that personal assessment of life so far is more driven by stimulation coming from family relations and job, while future prospects are more influenced by material concerns, 'comforts', such as living standards and income. Assessment of health is also more associated with future hopes. This may be explained by ageing: those who experience health problems may expect the deterioration of their health, and this plays an increasing role in their assessment of future.

Why is satisfaction with housing and with neighbourhood relatively more associated with life up till now, however? These clearly seem to be elements of living standards, so why are they not stronger associates of future prospects? A possible explanation may be that housing is a major achievement for many people, as nearly half of the population lives in homes which were actually built by themselves. Achievement brings happiness, according to the so-called 'activity theories', which hold that happiness is a by-product of human activity, of effort (see footnote 3). Beyond this, having a house was most likely a change for the better for the majority of people. So it might be this *change*, which makes this element of living standards particularly relevant for the past.

Materialistic Hungarians?

As presented earlier, family is a domain of life, which brings high contentment for most people, while sentiments about income are mostly those of dissatisfaction (see Figure 5.2). How do these influence people's general sense of well-being? Satisfaction with family may be high, but if people do not really think it is very important for them, say for example that they are deeply materialistic, then it is not likely to influence their overall satisfaction. Observing the survey evidence, it seems that indeed, both general measures of SWB are more strongly associated with satisfaction with living standards or income than with satisfaction with family relations. This means that variation in SWB is more explained by the variation in living standards. Put it simply, having little or much money can explain better why people are miserable or happy. In contrast, happy family life, although it is clearly declared to be happy by most people, may just be taken for granted. As Tolstoy put

it in his starting sentence of *Anna Karenina*: “All happy families resemble one another, each unhappy family is unhappy in its own way”.

This evidence also confirms that people are more concerned about what their money buys for them rather than with the money itself. The relationship between general SWB measures and satisfaction with living standards is stronger than the one between overall SWB and income satisfaction. This may show that people actually evaluate their pleasure derived from consumption. Further to this, ‘living standards’ may be thought of as a state enjoyed from resources pooled over time, in contrast to ‘income’, which is just a measure at one point in time. There may be also a difference in terms of pooling within the family; people evaluating primarily their own income when thinking about satisfaction with income, and, in contrast, the actual income they get within the family as an element of their current living standards. Whatever the reasons are, this significance of the measure of satisfaction with living standards seems to give a justification to the fundamental approach to this thesis, namely to use measures of well-being other than income.

These relationships and the following explanations only hold rather tentatively. Firstly, the tables present only bivariate associations; there is no control for other potentially influential factors. Secondly, they present only associations, without any indication of causality. Thirdly, the presented variables are all subjective measures, exclude important objective factors, first of all the personality itself. All these points need further explanation.

‘Experienced’ satisfaction differs from ‘expected’ satisfaction

First, the multivariate technique will address a similar question to that tackled before: does the assessment of future prospects differ from that of personal past? Following this, I will analyse the relationship between domain satisfaction and general satisfaction separately for specific labour market groups in order to be able to (1) examine the role of job satisfaction (2) to test how much these groups differ in their ways of assessing their overall SWB. Finally, I will analyse whether the relationship between domain satisfactions and general satisfaction has changed during transition, whether people in general apply a different mental process for judging how well they do in general.

Table 5.4 Partial correlation of domain satisfactions with general measures of life satisfaction

	Partial correlation with	
	satisfaction with life up till now	satisfaction with future prospects
Satisfaction with ...		
living standards	0.3972	0.4735
income	0.1187	0.1556
family relations	0.1946	0.0554
health	0.1427	0.2255
housing	0.1329	-0.0024
neighbourhood	-0.0128	-0.0148
Year (dummy, '1998'=1)	-0.0125	0.1446
Observations	8128	7883

Notes: **Bold** denotes significance at 1% level.

The estimations are based on a pooled dataset of the two cross-sectional surveys.

Controlling for other domains of satisfaction and time, general life satisfaction is most strongly associated with satisfaction with living standards (Table 5.4). Any other domain, including that of family life explains a far smaller proportion of the variance of general life satisfaction. This corroborates the results of the bivariate analysis (Tables 5.2-3). Thus, *Hungarians primarily think about their living standards when they assess their overall SWB*. Whether the explanation is that they are fundamentally materialistic, or that the material conditions have changed the most in the recent past, that's why they matter more than more stable elements of their lives, remains unknown.

The multivariate analysis confirms the earlier finding: correlates of the past do greatly differ from those of the future. The difference between each pair of coefficients has been tested: with 1% confidence I could reject the null hypothesis that the coefficients of the specific domain satisfactions are equal in the equation for life so far with that of future prospects, except for one case, satisfaction with the neighbourhood¹¹⁵. So, for example, living standards as a correlate of life so far and living standards as a correlate of future prospects have been jointly tested and found to be significantly different.

¹¹⁵ The underlying model for partial correlation is actually multivariate regression. In order to test whether the coefficients in the specific two equations are different, I ran a joint regression, the so-called 'seemingly unrelated regression', then performed a series of joint tests including coefficients from both equations.

The interpretation of these results appears to be intriguing for another reason, not mentioned so far. Domain satisfactions, the explanatory variables in the model are expected to be correlated with current circumstances, and therefore they are more likely to determine satisfaction with life up till now (including current life satisfaction and 'discounted' past satisfaction) rather than self-assessed future prospects. As the results show, however, this is not the case: the strength of association between domain satisfactions and satisfaction with life up till now is not stronger than that between domain satisfactions and satisfaction with future prospects. In addition, we would expect future satisfaction to have stronger association with those aspects of current self-assessed well-being, which have a greater inter-temporal stability. Housing and neighbourhood domains are such, and for them, this expectation seems to be realistic. For health, we may assume an ageing effect, thus current health problems may be stronger associated with overall well-being in the future rather than with well-being in life up till now.

For income and family relations the results are rather counterintuitive. Satisfaction with income, the explanatory variable in this model, is the subjective assessment of *current* income. On the other hand, it is likely that satisfaction with future prospects is associated with discounted *future* incomes, and also satisfaction with future incomes. As discussed before, income mobility patterns indicate that the incomes were rather volatile in the 1990s, with little stability over time. Therefore the link between satisfaction with (current) income and the assessment of future prospects should be weaker than the relationship between satisfaction with (current) income and satisfaction with life up till now. The results presented here, indicate the opposite. In addition, the weak association between satisfaction with family life and satisfaction with future prospects is also rather unexpected. Family relations, especially 'happy' family relations, are probably more stable than income or other external, material circumstances. All this seems to support the presumption that there is a systematic difference between the determinants of 'experienced satisfaction' and 'expected satisfaction'.

Satisfaction with living standards and satisfaction with income are stronger associates of future prospects than of life up till now. Family relations seem to be marginal for the assessment of the future, although they are the second most important associates of contentment with the past. This may provide evidence for Scitovsky's and others' claims that people are bad judges in matters of their own happiness: things which they think

would bring them happiness are rather different from those which actually turn out to have done so. In Scitovsky's terminology, it seems that Hungarians are more concerned about their 'comfort' when they think about their future contentment and they value 'pleasure' more when they assess their personal past. This, however, is just a relative difference. Overall, the conclusion is that general material 'comfort' is by far the major element associated with SWB, either past or future satisfaction. Interestingly, however, people tend to greatly underestimate the positive effect of family relations on their future satisfaction.

Life satisfaction and labour market position

The distribution of various measures of satisfaction across specific labour market groups, shown in Figures 5.4 and 5.5, implies that there is a particular group of measures expressing 'material' well-being, including living standards, income and housing. Other measures of subjective well-being, including satisfaction with family life, with health and possibly with job express qualitatively different aspects of people's lives. Satisfaction with income tends to be the lowest for the unemployed and the inactive in both years. Similarly these groups have the lowest satisfaction with housing and living standards.

Satisfaction with living standards is consistently higher than income for all groups and shows a somewhat smoother pattern. This most likely reflects the generally high satisfaction of people with their housing, itself an element of living standards. Income, as described in chapter 3, was seriously affected by economic transition, more so than housing conditions, as shown in chapter 4. The relative satisfaction of people with their housing and with their living standards seems to support a starting assumption of the thesis, that income is the most volatile measure of well-being during transition, and may actually express people's general living standards poorly.

Figure 5.4 Labour market status and satisfaction with specific domains of life, 1992

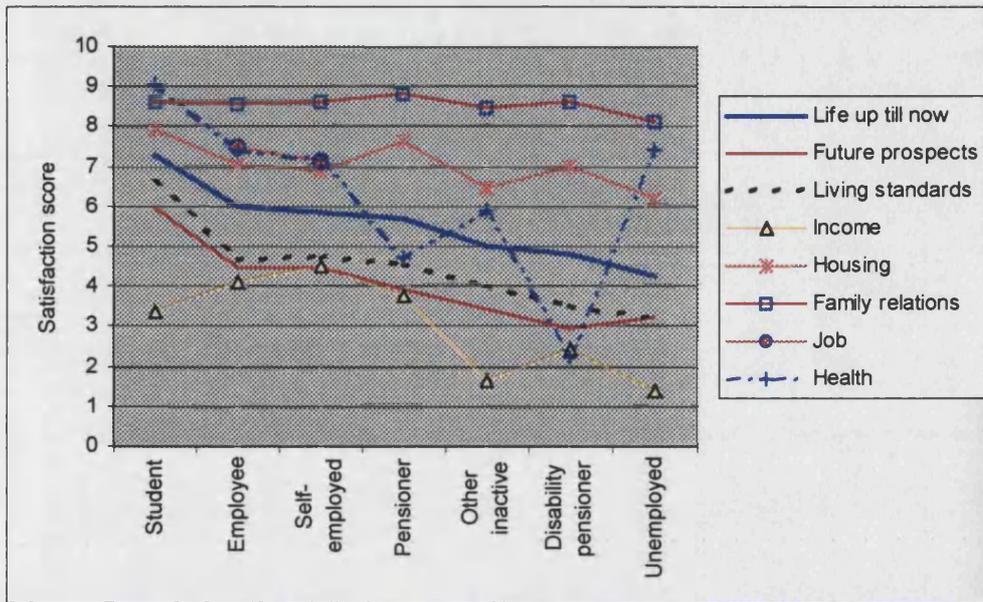
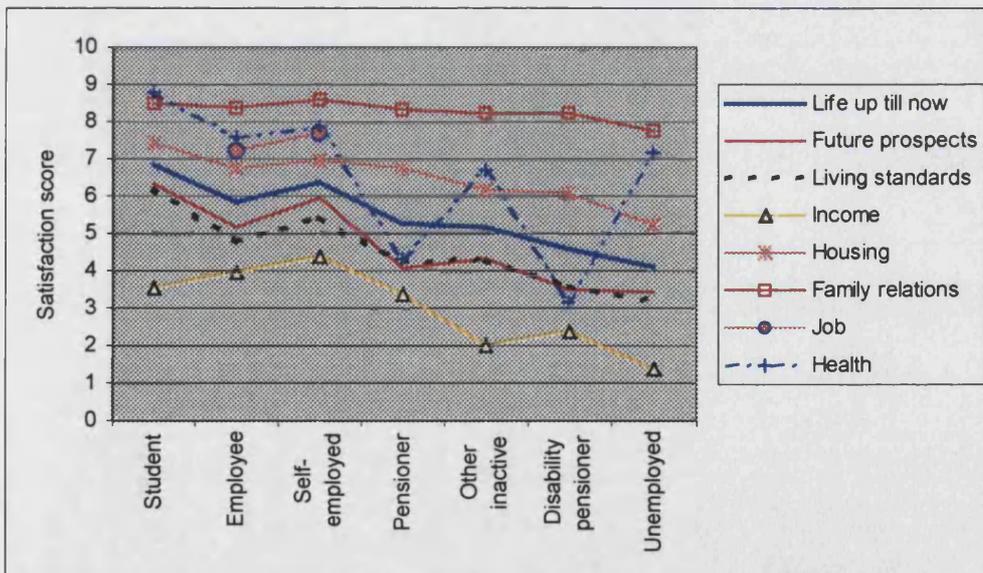


Figure 5.5 Labour market status and satisfaction with specific domains of life, 1998



Satisfaction with family relations is high and varies very little among different labour market groups. Health, in contrast, is the most volatile measure of subjective well-being. The disability pensioners in particular, but also pensioners tend to be very dissatisfied with their health. In contrast, students are very contented. A great part of this variation is most likely attributable to age differences: the young (thus students) tend to be healthy and therefore satisfied with their health, the elderly (thus pensioners) tend to have health problems and therefore little satisfied with their health. One issue which is not clear,

namely whether the low satisfaction of the disability pensioners is actually related to their poor health, or just reflects a 'falsification' of reality in case they do not have major health problems but they perceive the survey as a means of external surveillance. As described earlier (see chapter 2), a substantial number of workers exploited the permissive disability pensioner scheme as an exit strategy from the labour market. Did these people actually also experience impairing health problems? My calculations from the 1998 survey suggest that *health problems among disability pensioners are more common than among pensioners*. In order to discount for deteriorating health at very old age, and also for the relatively higher average age of pensioners, I excluded those who were older than 65 years from the comparison. I found that 87% of disability pensioners take regular medication, while 65% of pensioners, and 31% of disability pensioners have been in hospital for over a week in the past year, while this rate is 'only' 18% of pensioners. Thus 'disability' of disability pensioners appears to be more than just a device to claim benefits.

Job satisfaction tends to be rather high on average (for those with jobs), higher than satisfaction with any 'material' domain of life. Is it also a major element of overall life satisfaction? If it is, we may assume that those who are involuntarily non-employed the lack of job is a major source of discontentment. Job satisfaction indeed turns out to be a major correlate of satisfaction with life (Table 6.6). Interestingly, it is particularly the case for the self-employed. As indicated by Figure 5.5, average job satisfaction of the self-employed has significantly surpassed that of employees in 1998. In the early 1990's, in contrast, employees were more satisfied with their jobs, as Figure 5.4 shows, which indicates a gradually improving relative situation of entrepreneurs. It seems thus that increased autonomy in influencing the circumstances of the job is reflected in the greater weight of job satisfaction as an element of general well-being. Similar evidence was found in other countries as well.

Entrepreneurship brings higher job satisfaction, and a large number of people would prefer to be self-employed, both in Eastern and Western Europe (Blanchflower et al. 2001). Their survey data show that half of Hungarians would prefer to be self-employed. A possible explanation for this is given in the classic study of Schumpeter, who describes the motivations of the entrepreneur. What drives the entrepreneur, 'are primarily three things: (1) 'the dream and the will to found a private kingdom, usually, [...], also a dynasty'; (2)

'the will to conquer: [...], to succeed for the sake, not of the fruits of success, but of success itself; and (3) 'the joy of creating' (1934, p. 93).

Table 5.5 Partial correlation of domain satisfactions with satisfaction with life up till now for various labour market groups

	<i>Partial correlation with satisfaction with life up till now</i>					
	employees	self-employed	unemployed	disability pensioners	pensioners	other inactive
<i>Satisfaction with</i>						
living standards	0.3615	0.3857	0.3452	0.4079	0.3977	0.4753
income	0.0766	0.0005	0.1111*	0.1185	0.1235	0.0826**
family relations	0.1940	0.1958	0.1940	0.2164	0.1673	0.1620
job	0.1469	0.2017				
health	0.0967	0.1007*	-0.0061	0.1288	0.1493	0.1845
housing	0.1174	0.1614	0.1228**	0.1682	0.0700	0.1817
neighbourhood	-0.0278*	-0.1983	0.0245	0.0256	0.0230	0.0336
Year	-0.0245	0.0073	-0.0058	-0.0208	-0.0077	0.0428
<i>Observations</i>	<i>3721</i>	<i>330</i>	<i>278</i>	<i>552</i>	<i>2421</i>	<i>650</i>

Notes: * denotes significance at 10% level, ** denotes significance at 5 % level, **bold** denotes significance at 1% level

Counterintuitively, family life does not seem to play a particularly strong role for the group of inactive who are neither pensioners nor students, despite that we can expect many of them are supposedly 'home-makers'. As Table 5.5 shows the correlation between satisfaction with family relations and overall life satisfaction is lower for the other inactive than for other labour market groups. This may indicate that for most of them family life is not a more important factor than for others, their absence from the labour market might not have been driven by the desire to try to improve their family relations.

Table 5.6 Partial correlation of domain satisfactions with satisfaction with future prospects for various labour market groups

	<i>Partial correlation with satisfaction with future prospects</i>					
	employees	self-employed	unemployed	disability pensioners	pensioners	other inactive
<i>Satisfaction with</i>						
living standards	0.4341	0.5776	0.3893	0.4597	0.4952	0.5255
income	0.1425	0.0318	0.1724	0.0912**	0.1315	0.1148
family relations	0.0653	-0.0435	-0.0656	0.0518	0.0630	-0.0129
job	0.0696	0.2102				
health	0.1803	0.1958	0.1296	0.1541	0.1806	0.2360
housing	-0.0104	-0.1214**	-0.0331	0.1446	0.0069	-0.0695*
neighbourhood	-0.0659	-0.0619	0.0841	-0.0493	0.0485**	0.0505
Year	0.1664	0.2177	0.1201**	0.1158	0.1143	0.1527
<i>Observations</i>	<i>3667</i>	<i>325</i>	<i>276</i>	<i>534</i>	<i>2284</i>	<i>626</i>

Notes: * denotes significance at 10% level, ** denotes significance at 5 % level, **bold** denotes significance at 1% level

In contrast to the assessment of life so far, where there is no general change attributable to transition itself (the coefficient of the year dummy is insignificant), future satisfaction seems to have significantly and positively changed in the 90s for all labour market groups (see Table 5.6). The major improvement is for the self-employed, who seem to have become the most optimistic over time, controlling for domain satisfactions. Satisfaction with living standards is undoubtedly the major partial correlate of satisfaction with future for all labour market groups. Satisfaction with income seems to play a particularly important role for the unemployed.

Associates of life satisfaction largely unchanged during transition

How has transition affected the interrelationship between domain satisfactions and general life satisfaction? Has the mental process of 'happiness as a state' changed during the 90s? Have people become more focused on their personal achievements, their income, or their living standards? In order to test this, I have introduced interaction terms into a regression model, where each domain of satisfaction was interacted with a year dummy. Thus, the partial effect, if significant, shows a change over time. A special population group was selected, that of employees, in order to be able to include job satisfaction into the model.

$$SWB_{\text{past}} = f(DS_1, DS_1^*t, \dots, DS_7, DS_7^*t, t)$$

$$SWB_{\text{future}} = g(DS_1, DS_1^*t, \dots, DS_7, DS_7^*t, t)$$

SWB_{past} means satisfaction with life up till now, SWB_{future} means satisfaction with future prospects, DS_1 to DS_7 are specific domain satisfactions, t is a dummy, which takes the value 1 if the year is 1998 and 0 if 1992.

As Table 5.7 shows, mostly the main effects of the coefficients are significant, but only few of the interactions. This means that *variation in general measures of satisfaction is not primarily attributable to the transition itself*. The interaction term of job satisfaction and satisfaction with the neighbourhood are significant and positive in both models, although have a small coefficient. Job satisfaction and satisfaction with neighbourhood have become increasingly correlated both with satisfaction with life so far and with satisfaction with future prospects in the group examined here, i.e. employees. This implies the *increasing role of job satisfaction and satisfaction with the neighbourhood in people's life*. The greater importance of job satisfaction

may be attributable to changing role of jobs in people's lives: employment seems to have become increasingly a source of contentment or dissatisfaction for people.

Table 5.7 Relationship between domain satisfactions and two measures of life satisfaction among employees, OLS regression

	<i>Satisfaction with life up till now</i>		<i>Satisfaction with future prospects</i>	
	Coef	Std Err	Coef	Std Err
<i>Satisfaction with...</i>				
living standards	0.3858	0.0267	0.4694	0.0258
living standards*year	0.0232	0.0482	0.0997*	0.0532
income	0.0729	0.0222	0.1820	0.0239
income*year	-0.0044	0.0380	-0.0966**	0.0439
family relations	0.1892	0.0245	0.0347	0.0232
family relations*year	0.0059	0.0358	0.0586	0.0361
job	0.0959	0.0245	0.0251	0.0243
job*year	0.0634*	0.0368	0.0726**	0.0357
health	0.0733	0.0211	0.1299	0.0215
health*year	0.0100	0.0337	0.0504	0.0355
housing	0.1199	0.0232	0.0178	0.0219
housing*year	-0.0403	0.0401	-0.0635*	0.0376
neighbourhood	-0.0554	0.0207	-0.0837	0.0200
neighbourhood*year	0.0726	0.0334	0.0562*	0.0333
Year	-1.0092	0.3317	-0.7707**	0.3311
Constant	0.5714	0.2453	0.5486	0.2363
Observations	3721		3667	
F-ratio	151.83		160.48	
R ²	0.3815		0.4085	

Notes: * denotes significance at 10% level, ** denotes significance at 5 % level, **bold** denotes significance at 1% level

The model has been corrected for heteroscedasticity¹¹⁶.

5.4 HAPPINESS IN TRANSITION: SYNTHESIS OF A SUBJECTIVE EXPLANATION

In contrast to some previous literature, Hungarians are not unhappier than other nations in the region. The survey evidence, however, reveals that there is a major difference in the level of happiness between Western-Europe and that of Central-Eastern Europe, and also

¹¹⁶ The so-called Huber/White or sandwich estimator of variance was used in place of the traditional calculation. This alternative variance estimator produces consistent standard errors if the residuals are not identically distributed.

that in general countries of the former Soviet Union score worse than other Eastern-European nations. This also implies that *the relatively high suicide rate in Hungary* (see chapter 2), which has been used as a proxy for alienation, anomie and life satisfaction by Hungarian scholars, *appears to be only a poor predictor of overall happiness.*

Transition has somewhat lowered satisfaction with life up till now, but satisfaction with future prospects grew between 1992 and 1998, which is probably a sign of growing optimism. A peculiarity of the Hungarian situation is that, unlike other countries, the level of satisfaction with the life so far is greater than that of the future. Possible reasons for this may be past nostalgia, income loss during transition, or interpretational differences between these two notions of general life satisfaction. Detailed measures of satisfaction show that people in general are very delighted with their family relations and rather discontented with their incomes and living standards. During the 1990s there was a moderate decline in most measures of satisfaction with particular domains of life, although satisfaction with living standards remained on the same level.

Health was found to be the most volatile measure of subjective well-being. The disability pensioners in particular, but also pensioners tend to be very dissatisfied with their health. The poor health reported by disability pensioners is not simply a falsification of reality in order to justify the benefit status. Disability pensioners do tend to have worse health, as also indicated by the higher share of people taking regular medication or of those who had hospital treatment in the past year compared to 'young' pensioners, those below the age of 65.

I have attempted to look at the relationship between domain satisfactions and general measures of life satisfaction in order to understand the underlying 'structure of happiness', the possible differences between self-assessed life so far and that in the future. As emphasised, this interpretation of 'expected utility' as an aggregate of 'utils' is just one particular approach in describing happiness, which shows similarity to the so-called 'bottom-up' approach in psychology. Since other factors, first of all personality, are also expected to play a role, the results do not substantiate a causal interpretation.

Satisfaction with living standards is the strongest correlate of both measures of life satisfaction, stronger than satisfaction with income. This provides a powerful justification for the use of non-

income measures of well-being. There is also evidence that other factors of quality of life are also significantly correlated with overall well-being. Job satisfaction, self-assessed health and family relations, and also housing quality are all important elements of life satisfaction. They have remained to be so, even after controlling for the effect of satisfaction with income. These particular aspects of life are thus significant, over and above the effect of self-assessed income situation.

A peculiar finding is that associates of 'experienced satisfaction' differ from 'expected satisfaction' in a somewhat counterintuitive way. Satisfaction with future prospects was shown to be a stronger correlate of the income and living standards situation, while family relations mattered more for the assessment of the course of life so far. This is counterintuitive, because the inter-temporal stability of family relations is probably greater than that of income, thus we might expect satisfaction with current income to be a stronger associate of life up till now ('experienced utility') than that of future prospects (discounted future utilities). Thus if people follow their judgements on future utilities and will be primarily concerned about their incomes rather than their personal relations, they may not actually maximise their happiness. The reason for this may be the classic, although to my knowledge empirically yet not substantiated, claim of Scitovsky, that people tend to misjudge what brings them happiness, and as a result tend to overinvest into 'comfort' at the expense of 'pleasure'.

The sources of happiness appear to differ greatly among specific labour market groups. Job satisfaction was a stronger correlate for the self-employed than employees, indicating the success or failure in the job matters more for the self-employed due to their greater autonomy and responsibility with respect to their employment. Job satisfaction of the self-employed has substantially improved over time relative to employees, and in 1998 it was substantially higher among the former. Satisfaction with family relations was not a particularly strong factor in the life satisfaction of the housewives and other inactive groups, which might imply that their absence from the labour market may not be a voluntary choice due to their strong preferences for family life. This finding is tentative at this stage, and appears to be a promising future research issue with using more specific groups of the inactive population.

General measures of life satisfaction were shown to be rather stable over time, their variation was little affected by the transition process, except for job satisfaction and satisfaction with neighbourhood. *Job satisfaction and satisfaction with neighbourhood* seem to play an *increasing* role in people's life. Controlling for other domains of satisfaction, the analysis found that both job satisfaction and satisfaction with the neighbourhood have become more strongly associated with general measures of life satisfaction.

From a policy perspective a challenging further issue is the relationship between objective factors and subjective well-being. How do circumstances relate to self-assessed situation? How do personal characteristics explain variations in satisfaction? The starting hypothesis of 'meritocracy' is a major relevant issue in this respect as well: are labour market participation and income level primary determinant of satisfaction, or do gender and ethnic differences also matter?

These issues, and the relationship between objective and subjective well-being in particular, will be the concern of the following part of the thesis. Chapter 6 will analyse three specific domains of satisfaction, satisfaction with income, with housing and neighbourhood, and satisfaction with family relations. This focus follows on from the main concerns of chapter 4 related to objective measures of well-being. Job satisfaction, unfortunately, will not be examined here, since it would require detailed specific labour market data, unavailable in a general purpose household survey. The final part of the analysis, in chapter 7, will examine the relationship between personal characteristics, objective circumstances and general life satisfaction. It may also be called the analysis of social inequalities in terms of happiness. I will also examine the consequences of economic transition, and the changes in these inequalities over time.

**ANNEX 5. SUMMARY STATISTICS OF SUBJECTIVE WELL-BEING
VARIABLES**

Table A5.1 Summary table of subjective well-being variables

<i>Variable (Satisfaction with...)</i>	<i>Mean</i>	<i>Std. Dev.</i>	<i>Min</i>	<i>Max</i>	<i>Observations</i>	<i>Weighted observations</i>
1992						
Life up till now	5.73	2.73	0	10	5278	4011.04
Future prospects	4.16	2.77	0	10	5067	3849.03
Living standards	4.52	2.61	0	10	5277	4144.19
Income	3.63	2.77	0	10	5065	3979.94
Relationships within the family	8.61	2.10	0	10	5252	4125.76
Health	5.36	3.23	0	10	5290	4154.80
Work	7.41	2.54	0	10	2755	2095.68
Flat	7.12	2.78	0	10	5272	4137.40
Neighbourhood	7.29	2.81	0	10	5273	4142.58
1998						
Life up till now	5.50	2.58	0	10	3770	5041.36
Future prospects	4.65	2.61	0	10	3689	4939.51
Living standards	4.51	2.44	0	10	3769	3727.14
Income	3.43	2.51	0	10	3253	3167.42
Relationships within the family	8.31	2.22	0	10	3754	3714.85
Health	5.27	3.16	0	10	3775	3733.22
Work	7.20	2.45	0	10	1544	1589.70
Flat	5.61	2.70	0	10	3770	3725.91
Neighbourhood	7.01	2.69	0	10	3776	3733.72

'HAVING' AND 'BEING': OBJECTIVE WELL-BEING, PERSONAL
CHARACTERISTICS AND SATISFACTION

This chapter examines satisfaction with specific domains of life, shortly domain satisfaction, including satisfaction with income, housing and family relations. As shown before, there was a significant decline in satisfaction with income, housing and with family relations between 1992 and 1998 (see Figure 5.2). What may be the underlying causes of these changes? What are the main social patterns of satisfaction at one point in time? Have these patterns changed during transition? One major question is how strong is the relationship between objective circumstances and their subjective assessment. Is it income, housing quality or labour market status, which primarily drives satisfaction, or is it personal characteristics that matter more? How much can we explain different levels of satisfaction by these observable characteristics?

Measures of satisfaction are undoubtedly individual level measures, in contrast to certain objective conditions, which are shared by family members. Income or housing conditions are typically such shared qualities of objective well-being. Subjective well-being may shed light on the intriguing issue of distribution of income within the household. One related question is whether there is any systematic 'deprivation' of women within the household?

Studies on satisfaction in Hungary primarily focus on level of satisfaction, and its relationship to mental health, to alienation and anomie. Andorka has analysed early years of the transition (Andorka 1993; 1999) and was puzzled by the finding that satisfaction with income and with living standards increased between 1992 and 1994 despite falling average real income and widening inequalities. Later evidence shows a decline in these measures of satisfaction by 1997 (Spéder et al. 1998).

A general finding is that income situation and educational level are strongly related to levels of satisfaction: people with more income or with higher education tend to be more contented (Andorka 1993; Spéder et al. 1998, p. 508). There is also evidence that the young and the old are more contented than the middle-aged (Andorka 1993). These studies, however, do not seem to go beyond describing simple bivariate relationships, for example between education level and satisfaction. They all seem to discuss issues of satisfaction together with alienation and anomie. All this seems to be essential in order to establish satisfaction as a measure of quality of life in the country. My analysis, however, will go further than this, and will provide an in-depth analysis of social patterns of satisfaction with using multivariate statistical techniques.

6.1 DOES PLENTY MAKE PEOPLE HAPPY?

Intuitively, one may expect a strong relationship between a domain satisfaction and the objective measure of that particular domain. Thus, satisfaction with income is expected to be driven by income, and similarly, one can presume a strong relationship between satisfaction with housing and housing quality, and also between satisfaction with family relationships and the nature and quality of those relationships. Survey evidence from other countries shows that the relationship between objective circumstances and their subjective appraisal undoubtedly exists, although it is not very strong (e.g. Campbell et al. 1976; Allardt 1977). A classic study on the United States finds that objective variables explain 12% of satisfaction with housing and 8.8% of satisfaction with family life (Campbell et al. 1976). As mentioned in the previous chapter, money tends to buy happiness, both across countries and across individuals within a single country (for a recent review on this issue, see Diener and Oishi 2000). These findings and the positive results of tests, which scrutinized the validity and reliability of subjective well-being measures suggest, as I argued in the previous chapter, that subjective well-being can be used as a useful indicator of differences in individuals' opportunities. One task of this chapter is to assess to what extent plenty makes people contented in Hungary.

Hypothesis

People's subjective assessment of their living standards may highlight specific aspects of the relationship between objective and subjective well-being. One such issue is whether *current household* income is an adequate description of the income situation of individuals. Firstly, people may not just consider their *current* income levels, but rather a more 'permanent' definition of income, including income in the past and possibly in the future as well. They may also compare their own situation with that of others, especially with that of their reference group. As a result of these, personal characteristics may be strongly correlated with satisfaction with income. Primarily those variables, which refer to an income generating ability are expected to show a 'latent income effect', thus may be significant after controlling for income. I will also test whether wealth influences the assessment of current income, using measures of savings, household assets and amenities.

Secondly, although equivalised *household* income, assuming equal sharing, seems to be the best proxy for individual's living standards, as argued before in the methodological section of chapter 3, this notion may be inadequate. Criticising conventional methods of poverty research Cantillon and Nolan argue in favour of the use of non-monetary indicators, which could possibly capture gender differences within the household (1998; 2001). They focus on indicators, which capture differences in consumption, the control and management of resources, and access to leisure activities (2001, p. 14). Subjective well-being, a typically individual level variable of well-being, appears to capture some aspects of these issues. Is there any gender difference, controlling for income and other personal characteristics? What is the distribution of resources within the household and how does it affect household members? I will introduce a measure of individual's own contribution to the common household budget. This income share is expected to be significant, controlling for equivalised household income, if people's well-being differs from that provided by their equal share within total household resources. This may be a tentative attempt to examine the possible differences in the bargaining position of partners within the household. Following on from this, the next chapter will examine whether there are gender differences in overall satisfaction.

This chapter will discuss satisfaction with income, family relations, and housing. Job satisfaction, however important it seems to be, will not be discussed in detail. The reason is the nature of the available dataset: it does not include variables which are commonly described as the main factors driving job satisfaction in the literature, such as employment stability, relationships within the workplace, career perspectives, etc¹¹⁷. The main focus will be on income, primarily due to its specific relevance as an economic variable.

A major contribution of this research will be to show whether patterns of satisfaction have substantially changed between population groups or they remained stable over time despite being exposed to fundamental external changes during the transition process. The analysis of such an external shock will shed light on the fundamental nature of measures of satisfaction. This 'natural experiment' will show whether the relationship between

¹¹⁷ Existing studies on job satisfaction in Hungary are based on the International Social Survey Programme, see (Medgyesi and Róbert 1998; 2000).

environmental factors or personal characteristics and measures of satisfaction is exposed to environmental change, and if it is, which factors are volatile.

What is the expected 'transition effect' on people's satisfaction? The hypothesis referring to the stability of satisfaction patterns need to remain on a speculative level. The reason is that it is a rather unique historical situation, and there has been very little research done on this issue so far. The discussion in earlier chapters suggests that three phenomena may particularly have an impact on people's satisfaction: (1) changes in the level and distribution of income, (2) changes in the labour market and (3) restructuring in the housing market.

Firstly, there was an overall decline in satisfaction with income, as shown in chapter 5. This may be attributable to the drop of real income for most people and growing inequality. Inequality has been shown to have a negative impact on happiness in general (e.g. Morawetz, Atia, Bin-Nuh, Felous *et al.* 1977). Further to this, we may assume that growing inequality particularly affects those who are left behind. A rather different reasoning seem to lead to a similar conclusion. The poor may also be dissatisfied, because they are 'needy', to wit they suffer from the lack of means to meet their objectively existing needs. This view is strongly represented by critiques of the 'relative' theories (Veenhoven 1991). A negative association between low income status and satisfaction with income might become *stronger* if satisfaction is primarily driven by the growing 'need' of the poor. On the contrary to this, however, the misery of 'needy' in an environment of 'losers' may lessen. Thus, the association may *decline* over time if social comparison effects dominate. The analysis will test whether there is any significant change in the satisfaction with income for a particular income group over time.

A second major aspect of the transition process is that many people lost their employment. Being without job, either as unemployed or as inactive, is expected to cause dissatisfaction, due to the lower level of income and other non-pecuniary costs (Clark and Oswald 1994; Winkelmann and Winkelmann 1998). Labour market position is one of the major determinants of income in Hungary, as shown in chapter 3 (see Table 3.5). Non-participation in the labour market, due to its impact on incomes, is expected to lower people's satisfaction with material aspects of life. Declining participation affected women

more than men (chapter 4). Is there any change in satisfaction with income for specific labour market groups?

Thirdly, the vast public housing privatisation programme left behind only a very small number of tenants, and these lived in dwellings increasingly hit by major quality shortfalls (see discussion in chapters 2 and 4). Are tenants increasingly dissatisfied with their housing and their neighbourhood? Is there any increasing association between objective measures of housing quality and satisfaction?

It is not just plenty, however, which drives satisfaction. Psychologists emphasise that personality 'traits' are just as important as objective circumstances as determinants of subjective well-being (see Figure 5.3). Therefore personal characteristics, observable features of 'personality' are just as essential elements of models of subjective well-being. These may also be called, following the terminology of Veenhoven, the "art of living"; to wit, personal abilities to exploit given chances, and life-events; happenings, partly due to good or bad luck" (1996, p. 24). As shown, the satisfied tend to be socially extravert and open to experience (see a review by Veenhoven 1996). The features examined here are mostly of demographic and economic nature, with very limited use of specific measures of psychological attributes of personality, due to the nature of the survey. Variables, which express specific value orientation may be useful from this point of view: first of all religiosity or age. These are expected to influence people's expectations, aspirations, thus the assessment of their actual life situation. Other personal characteristics most likely influence how well they can adapt to economic changes. Educational level and age may be such characteristics.

Methodology

The multivariate analysis will use varying sets of explanatory variables. Some of these will be proxies of objective well-being. Another group will present personal characteristics. These will include mostly variables used in the previous analysis already. An additional variable is religiosity, which is expected to reveal possible specific attitudes, based on the existing literature. (For a description of all the variables used here, see Appendix B.) It is not possible to identify a unique specification of the 'optimal model' based on the literature. Instead, the forthcoming models are based on the starting research question, the

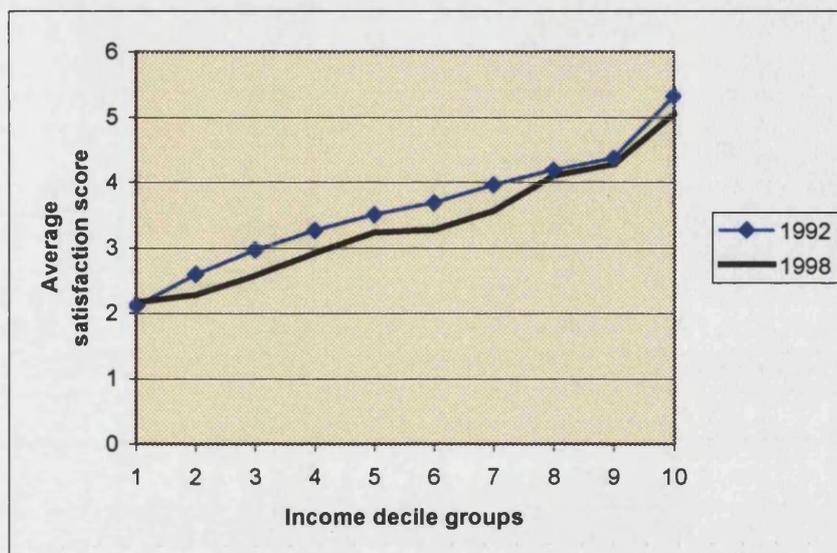
characteristics of the dataset, and the goal of parsimony. Details of specification will be discussed alongside the estimation results.

The regression method is linear regression, using the OLS estimation method, or binary logit model (for family relations). In most cases (for income, housing and neighbourhood) I used OLS regression, which means that I treat satisfactions as continuous variables. Thus, I assume that respondents, when answering these questions, actually think of the response scale in numerical terms, considering distances as equal. For this, it is essential that the survey question is actually raised in numerical format, and it has relatively large number of categories, eleven¹¹⁸. [Similar to my approach, others have also used OLS estimation technique for analysing life satisfaction (Di Tella et al. 2001).] Nevertheless, I have also tested whether the use of ordered logit model would have modified the results.

6.2 SATISFACTION WITH INCOME

What kind of relationship do we expect between a series of personal characteristics and satisfaction with income? Primarily, satisfaction with income is expected to be driven by income. Personal characteristics, however, may influence how income is converted into the subjective assessment of income. Examining the strength of association between income and satisfaction with income, we have to be aware that the concept of income used in the analysis is annual income, measured in a survey at one point in time. Contentment with income, however, may be based on the assessment of various notions of income. To some extent people may think about their current flow of income, thinking of a time horizon much less than a year. Beyond this, the interpretation may also consider a more permanent income, pooled over a period of time, which may include past and expected future incomes as well. As a result, the analysis, using current income, may underestimate the actual connection between income and satisfaction with income, or other factors may take on an income effect in the multivariate analysis.

Figure 6.1 Relationship between income level and satisfaction with income



Note: individuals were attributed to income decile groups on the basis of equivalised household income

It seems that money in some sense buys satisfaction. Level of income appears to be strongly associated with satisfaction with income, as Figure 6.1 shows. People in higher income decile groups tend to be more satisfied with their incomes. The contentment of the top decile group is the highest, the average score is twice as high as that of the bottom one. I have also tested whether this result is sensitive to the definition of income used, and found that similar positive correlation exists between annual personal income and satisfaction with income as well.

Satisfaction with income is greater for people with higher levels of education; those with university education being markedly the most satisfied (Table 6.1). Satisfaction varies a lot in different employment status groups, on average the self-employed and the employees are the most contented with their income and the unemployed and the inactive being the least (Table 5.2 in the previous chapter). This, however, is at least partly attributable to differences in income. Is there any effect of these variables over and above that of income? This question will be addressed in the coming section on multivariate analysis.

¹¹⁸ This is rather different from standard happiness questions, which often have three verbal labels, thus are ordinal discrete variables. (The happiness question of the General Social Survey in the United States is: *Taken all together, how would you say things are these days – would you say that you are very happy, pretty happy, or not too happy?*) These variables undoubtedly necessitate different techniques, for example ordered logit or probit models.

Table 6.1 Satisfaction with income by education level, labour market status and gender

	Satisfaction with income (mean score)	
	1992	1998
<i>Education level:</i>		
Not completed		
elementary education	3.18	3.06
Elementary education	3.14	2.77
Vocational training	3.48	3.32
High school	4.17	3.94
Higher education	4.75	4.79
<i>Labour market status:</i>		
Employee	4.11	3.96
Self-employed	4.50	4.36
Unemployed	1.40	1.35
Disability pensioner	2.43	2.39
Pensioner	3.74	3.39
Student	3.35	3.53
Other inactive	1.63	2.01
<i>Gender:</i>		
Male	3.69	3.65
Female	3.57	3.25

Multivariate analysis: higher income brings more satisfaction

In order to understand what factors may influence satisfaction with income, an ordinary least square (OLS) regression equation was estimated. The dependent variable is satisfaction with income, and the explanatory variables include income, labour market status, educational attainment, age, gender, ethnicity and other personal characteristics. Most of the explanatory variables have been defined as dummy variables or sets of dummies, because we expect a non-linear relationship between these and the dependent variable. The notion of income used in the model is equivalised household income, which is assumed to capture the best the real consumption opportunities of household members. Other right hand side variables, especially labour market status and educational level, may capture a more permanent income, including expected future incomes, and probably are in part proxies for personal income. Variables of personal characteristics, such as age or religiosity, may be observed variables of 'personality', thus may play a role in how people actually assess their objective circumstances (see Figure 5.3 in the previous chapter). The results have been compared with the outcome of a possible alternative estimation technique, ordered logit, but found no major divergence (see Table A6.1 in the annex).

Multivariate results confirm that higher income groups tend to be more contented, other things being equal. The coefficients of income quintile groups are all significant and show that the bottom two income quintile groups are less satisfied, and the top two quintile groups are more satisfied than the middle quintile group both in 1992 and 1998. There is a clear increasing trend in satisfaction alongside increasing ranks in the income distribution, accounting for a number of personal characteristics, including labour market status and educational level, (see table 6.1). This result has been found robust to various alternative notions of income as well. Using other measures, such as personal income, and the logarithm of equivalised household income in the model brought similar results: the coefficient of income was significant at 1% level and had a positive sign.

There is no significant change in most of the coefficients of income over time, except that of the bottom income group at 10% significance level. The bottom quintile group seems to have become relatively *less dissatisfied* over time. This, however, may be attributable to the declining satisfaction of the reference category, as suggested by Figure 6.1. The underlying reason may be that the mean income has declined over time, and as a consequence the *relative* situation of the low-income group has somewhat improved, as discussed earlier (see Figure 3.3-4 with the Kernel density estimates).

Table 6.2 Satisfaction with income - OLS regression

	1992			1998		
	Coef.	Std. Err	Beta	Coef.	Std. Err	Beta
Income: (quintile group)						
1 st	-0.845	0.132	-0.119	-0.562	0.141	-0.081
2 nd	-0.409	0.124	-0.059	-0.324**	0.125	-0.052
4 th	0.414	0.126	0.060	0.454	0.125	0.075
5 th	0.978	0.132	0.144	1.082	0.144	0.179
<i>Labour market status</i>						
Unemployed	-2.109	0.177	-0.151	-1.821	0.220	-0.118
Disability pensioner	-1.424	0.169	-0.120	-0.993	0.154	-0.113
Pensioner	-0.919	0.147	-0.148	-0.568	0.150	-0.104
Self-employed	0.151	0.228	0.010	0.251	0.228	0.020
Student	-0.709*	0.373	-0.037	-0.874*	0.496	-0.034
Other inactive	-1.915	0.163	-0.170	-1.366	0.170	-0.148
<i>Education:</i>						
vocat. training	-0.006	0.112	-0.001	0.071	0.116	0.013
secondary	0.405	0.115	0.061	0.553	0.127	0.091
higher edu	0.535	0.152	0.059	1.001	0.166	0.126
<i>Other personal characteristics:</i>						
Female	-0.093	0.084	-0.017	-0.295	0.091	-0.059
Ethnicity (Gypsy)	-0.314	0.196	-0.022	-0.287	0.228	-0.022
Lives in Budapest	0.082	0.085	0.011	-0.195*	0.114	-0.029
Age: 17-29 yrs	0.022	0.145	0.003	0.361**	0.170	0.055
30-39 yrs	-0.016	0.134	-0.002	0.173	0.147	0.026
50-62 yrs	0.326**	0.141	0.049	0.198	0.137	0.034
63 and more	1.402	0.179	0.211	0.949	0.181	0.160
<i>Marital status:</i>						
married	-0.067	0.147	-0.011	-0.119	0.164	-0.023
divorced	-0.341*	0.201	-0.032	-0.485**	0.205	-0.053
widow/er	0.018	0.197	0.002	0.136	0.204	0.019
<i>Number of children:</i>						
1	-0.050	0.117	-0.007	0.268**	0.132	0.040
2	0.135	0.141	0.018	0.422**	0.164	0.054
3 or more	0.087	0.196	0.007	0.446*	0.230	0.038
Religious	0.317	0.104	0.045	0.364	0.115	0.057
Constant	3.651	0.205	0.000	3.182	0.208	0.000
Adjusted R ²	0.1667			0.1801		
F ratio	44.45			28.93		
Observations	4904			3149		

* denotes significance at 10% level, ** denotes significance at 5 % level, **bold** denotes significance at 1% level

Base categories: 40-49 years, elementary education or below, employee, single, no children, 3rd quintile
The models have been corrected for heteroscedasticity. The so-called Huber/White or sandwich estimator of variance was used in place of the traditional calculation. This alternative variance estimator produces consistent standard errors if the residuals are not identically distributed.

Some non-income variables may also capture an income effect. As mentioned earlier, the concept of income used here is annual income, which may be different from the notion of income assessed by the individual. This latter may include past shocks and future risks of income loss or gain. It may also be a relative income, rather than absolute one. The 'risk' factor associated with income may be captured by the labour market status or by the educational level, since both of these approximate a person's general income generating abilities. The problem of relative versus absolute income is avoided to some extent due to

the applied income variable. Income quintiles reflect relative standing in the income distribution. A significant coefficient of a particular income quintile, however, may both imply that people have different levels of satisfaction than the base category because they have more or less absolute income or because they have comparatively more or less than others. It is very likely, however, that the notion of relativity depends not just on the overall social pattern of income distribution, but relates to a particular reference group.

Income generating capacity: education and employment

Higher educational attainment seems to bring satisfaction. This is increasingly so for those with higher education, the coefficient in 1998 is significantly higher than that in 1992. Educational level is a good approximation of an individual's income generating potential over a period of time, thus education may partly refer to an income effect. Those with higher education for example are both expected to earn more and to be able to acquire a stable source of income compared to those with low level of schooling. This finding is particularly interesting, because we may expect a counter effect as well: higher education is likely to bring a higher comparison wage level, and higher expectations for income. [Previous literature, using British data, suggests that worker's job satisfaction is inversely related to their comparison wage rates (Clark and Oswald 1996)]. The positive relationship between higher levels of education and satisfaction thus is likely to be a net effect of these two contrasting things, showing that higher and more stable income has a bigger impact on satisfaction than higher relative expectations.

Disadvantageous labour market status appears to be strongly associated with discontentment with income. Particularly the unemployed are much worse off than the employees, the reference category, as the size of the coefficient suggests. Thus, controlling for the level of income, the jobless are still relatively discontented. The reason maybe most likely related to the experience of income loss compared to their previous earnings level. Disability pensioners, many of them being laid off as redundant, are still worse off than the employees, but comparatively better than the unemployed. The reason may be that disability pensioners can rely on a stable source of income, in contrast to the unemployed. Or simply being 'disabled' is a more acceptable reason for 'failure'. A major revelation of the results is the low satisfaction of the inactive other than students or pensioners. Being inactive seems to be a main cause of discontent, together with unemployment. Why is this?

Those inactive, who are not involved in full-time study or do not live on pension may be discontented with their income for various reasons. It may relate to sharing of income within the household. Since they are not likely to contribute substantially to the total household income, their actual income position may differ from the one based on the assumption of equal sharing between adults. The analysis is based on the latter assumption. Thus if their actual income position is lower than this and it is reflected in their level of satisfaction, it will be captured in the coefficient of inactivity rather than that of income itself.

Dissatisfaction of women

A striking feature of the transition process is that *women became dissatisfied over time*. While in 1992 women and men did not differ in their assessment of their income situation, other things being equal, by 1998 women became significantly more discontented than men (Table 6.2). The results, however, also might be consistent with there being no change over time, as shown by the t-test on the difference in the estimates ($t=1.631$), which indicates no significant change at 5% level. This latter finding is very likely attributable to the sample size, which may not enable to detect changes over time. What could be a reason for the increasing dissatisfaction of women?

The labour market participation of women has greatly fallen, the fall surpassing that of men (see Figure 4.2 in chapter 4). The model includes actual labour market situation, but does not control for its changes in the past. The relative dissatisfaction of women may be related to the fact that many of them have lost previous employment and earnings. Alternatively, the declining real value of family support may negatively affect the relative income of women within the household. The relative dissatisfaction of women thus may be attributed to *changes* in their labour market status, earnings or in the real value of social benefits, rather than their actual level. This dynamic aspect unfortunately cannot be tested here.

A plausible further explanation for the dissatisfaction of women is the possibly they have more responsibility in the family for making ends meet. Survey evidence on handling the money within the family suggests that the overall majority of households (95%) merge the income of partners into a common budget (Nagy 1999). In most cases the partners handle

this jointly (60%), and if it is a single partner, then it tends to be the wife who is responsible for the common resources (30%).

Higher income share brings satisfaction: bargaining within the household?

The traditional economic approach assumes that household decisions are based on 'unitary' preferences (Becker 1981). From this it follows that household demand, spending decisions, are independent of which family member receives the income. This has been challenged by recent empirical evidence, which may be called the economics of marriage (Lundberg and Pollak 1994; 1996; Lundberg et al. 1997). As discussed earlier in chapter 3, they conclude that households do not have common preferences. Instead, household consumption decisions are rather like a 'bargain'.

This might be true in Hungary as well, although so far no research has tried to address this issue. My findings may shed light on the subjective aspect of this issue. The majority of the couples tend to pool their incomes together and then manage it jointly, as the evidence cited above indicates. Is this joint decision making based on the principle of equality? Or is it determined by the 'bargaining power' of parties? If it is the case, it is thus very likely to be influenced by the relative contribution of the partners.

Does income matter as a source of bargaining power within the household? If people's consumption depends only on total household income, then it does not matter how much they actually contribute to the total income of the household, since they receive their 'fair' share. We expect, however, that an individual's contribution to the resources of the household is very likely to influence his or her role in the decisions of the household. An alternative, although less likely, interpretation might suggest that for a truly altruist person, caring for the family may be part of his utility function, which may also explain why greater contribution to the common budget would bring him higher satisfaction. The hypothesis referring to the importance of individual contribution seems to be validated by the regression model (see Table 6.3). Including a new variable, which describes the share of the individual's income within the total household income, and includes earnings, capital income and social benefits, considerably improves the fit of the models, both in 1992 and in 1998. The variable itself is significant at 1% level and has a positive coefficient. Thus, increasing contribution to the resources of the household seems to yield higher satisfaction with income.

Table 6.3 Individuals' income share and satisfaction with income - OLS regression

	1992				1998			
	I		II		I		II	
	Coef.	Std. Err	Coef.	Std. Err	Coef.	Std. Err	Coef.	Std. Err
Share of individual's income within household			1.482	0.186			0.855	0.199
Income: (quintile group)								
1 st	-0.846	0.132	-1.065	0.135	-0.591	0.141	-0.686	0.144
2 nd	-0.408	0.124	-0.501	0.124	-0.328	0.125	-0.382	0.125
4 th	0.415	0.126	0.499	0.126	0.453	0.125	0.491	0.126
5 th	0.979	0.132	1.143	0.133	1.082	0.144	1.151	0.144
<i>Labour market status:</i>								
Unemployed	-2.114	0.178	-1.868	0.183	-1.812	0.220	-1.686	0.219
Disability pensioner	-1.424	0.169	-1.249	0.170	-0.991	0.154	-0.898	0.153
Pensioner	-0.919	0.147	-0.837	0.146	-0.573	0.151	-0.556	0.150
Self-employed	0.151	0.228	0.089	0.228	0.252	0.228	0.241	0.228
Student	-0.709*	0.373	-0.282	0.372	-0.860*	0.496	-0.614	0.499
Other inactive	-1.915	0.163	-1.546	0.168	-1.354	0.170	-1.219	0.171
<i>Gender:</i>								
female	-0.092	0.084	0.107	0.088	-0.298	0.091	-0.231**	0.093
<i>Other personal characteristics</i>								
Yes			Yes		Yes		Yes	
Constant	3.651	0.205	2.900	0.227	3.177	0.208	2.787	0.225
Adjusted R ²	0.1666		0.1793		0.1811		0.1863	
F ratio	44.38		47.31		28.94		29.29	
Observations	4901		4901		3136		3136	

* denotes significance at 10% level, ** denotes significance at 5 % level, **bold** denotes significance at 1% level

Base categories: 40-49 years, elementary education or below, employee, single, no children, 3rd quintile.

The models have been corrected for heteroscedasticity, using the Huber/White or sandwich estimator of variance.

Other personal characteristics: educational level, ethnicity, age, marital status, number of children, region, religiosity

It seems somewhat counterintuitive that the relative disadvantage of women in 1998 is not smaller, once accounting for their contribution to the common household income. This suggests that women still tend to be significantly more dissatisfied than men, over and above their own personal income, including both earnings and social benefits, and the total available income for the household. This seems to suggest that *income share is a useful proxy for bargaining power within the partners*, as the relationship between income share and satisfaction with income suggests, *but cannot capture gender differences entirely within the household*. There is thus clearly a gender issue related satisfaction with income, which is presumably linked to the command over resources or their actual distribution within the household. This seems to be a challenging direction for future research.

Savings bring contentment

Is the assessment of current income driven by the need or plenty of the household? Does the available wealth (savings) influence the satisfaction with current income flow? A striking characteristic of savings in Hungary is that low actually it is. In 1992 the majority of the households reported to have had no savings at all and only 44% of the people lived in households, which said they had some savings¹¹⁹. By 1998 this number has greatly fallen, only 16% had any savings, and nearly two thirds reported to have none. Refusal to respond has increased significantly, from 1% in 1992 to 20% in 1998. This had a clear income bias: those in higher income groups were less likely to respond at the later point in time. Those who may have become prosperous during transition, seem to have been particularly 'shy' about it. This data problem causes some problem in the interpretation of the results.

There is a clear pattern between zero reported savings and income position. Those who are worse off are more likely to have no savings at all. In 1992 $\frac{3}{4}$ of individuals in the bottom quintile group belonged to households with no savings. The similar ratio was only 38% of the top quintile group. In 1998 no less than 96% of the bottom fifth said to have had no savings at all. In contrast, 59% of the top fifth income group claimed so. This shows the existence of an income pattern to some extent.

Other measures of wealth, such as assets and household amenities are also expected to be indicators of long-term income position. They also indicate a certain level of living standards. Households which possess these may not need to invest in their purchase. On the other hand, certain assets, especially a car or a second home, may be costly, and their maintenance requires income.

In order to test the impact of wealth on satisfaction with income, I have included savings and a series of variables of assets and household amenities in the regression models (Tables 6.4 and 6.5). The savings variable shows the total savings of the household, either as cash, as bank account or as bonds. In order to account for diminishing returns of

¹¹⁹ A somewhat lower figure has been reported for non-saving in a different survey for 1992. In a sample of 1000 only 36% said that they tend to save regularly. Out of those who do not save, over 1/3 said they did not have savings at all, nearly 2/3 claimed they had not been able to save in the past two years (GKI Economic Research Co. 1992).

additional units of saving, the natural logarithm of the forint amount was used. The assets variable consists of a series of dummy variables of household non-monetary assets, measuring whether the household has a second home, a cottage, or a car. Household amenities are also measured as a series of dummies, indicating whether the household owns specific items, such as a deep freezer or video (for a detailed definition of the variables, see Appendix B).

Table 6.4 *Wealth and satisfaction with income 1992 – OLS regression*

	I		II		III		IV	
	Coef.	Std. Err	Coef.	Std. Err	Coef.	Std. Err	Coef.	Std. Err
<i>Savings</i>			0.052***	0.008				
<i>Assets</i>							Yes	
<i>Household amenities</i>							Yes	
<i>Income: (quintile group)</i>								
1 st	-0.852	0.134	-0.774***	0.133	-0.834	0.133	-0.769***	0.137
2 nd	-0.402	0.125	-0.354***	0.125	-0.404	0.124	-0.362***	0.126
4 th	0.411	0.127	0.364***	0.127	0.411	0.126	0.352***	0.126
5 th	0.957	0.133	0.838***	0.134	0.964	0.133	0.836***	0.135
<i>Labour market status:</i>								
Unemployed	-2.102	0.178	-2.069***	0.175	-2.109	0.177	-2.111***	0.175
Disability pensioner	-1.417	0.169	-1.390***	0.169	-1.396	0.170	-1.376***	0.168
Pensioner	-0.915	0.149	-0.916***	0.148	-0.892	0.148	-0.869***	0.148
Self-employed	0.145	0.228	0.149	0.222	0.129	0.229	-0.016	0.226
Student	-0.793**	0.372	-0.858**	0.374	-0.706*	0.373	-0.906**	0.371
Other inactive	-1.911	0.163	-1.914***	0.162	-1.894	0.163	-1.893***	0.165
<i>Other personal characteristics</i>								
Yes			Yes		Yes		Yes	
Constant	2.839	0.182	2.762	0.182	3.622	0.205	3.370	0.282
Adjusted R ²	0.1663		0.1744		0.1666		0.1722	
F ratio	43.85		45.09		43.72		30.72	
Observations	4840		4840		4868		4868	

* denotes significance at 10% level, ** denotes significance at 5 % level, **bold** denotes significance at 1% level. The models have been corrected for heteroscedasticity, using the Huber/White or sandwich estimator of variance.

Base categories: 3rd quintile, employee

Other personal characteristics: educational level, gender, ethnicity, age, marital status, number of children, region, religiosity

As expected, savings have a positive relationship with satisfaction with income (Tables 6.4-5). The coefficient is significant at 1% level, although its size is small compared to that of current income. The finding, however, is prevalent over both years analysed here: those who have more savings tend to be more contented. This may reflect a 'permanent income effect': savings provide the opportunity to pool resources over time. They increasingly

enable the household to maintain an accustomed consumption level if there is a sudden drop in current household revenues.

Table 6.5 *Wealth and satisfaction with income 1998 – OLS regression*

	I		II		III		IV	
	Coef.	Std. Err	Coef.	Std. Err	Coef.	Std. Err	Coef.	Std. Err
<i>Savings</i>			0.046***	0.011				
<i>Assets</i>							Yes	
<i>Household amenities</i>							Yes	
<i>Income: (quintile group)</i>								
1 st	-0.705	0.151	-0.653***	0.151	-0.565	0.141	-0.556***	0.141
2 nd	-0.383	0.136	-0.372***	0.136	-0.306**	0.126	-0.316**	0.127
4 th	0.451	0.137	0.409***	0.137	0.450	0.127	0.434***	0.128
5 th	0.960	0.159	0.817***	0.160	1.066	0.145	0.983***	0.147
<i>Labour market status:</i>								
Unemployed	-1.592	0.241	-1.601***	0.243	-1.836	0.221	-1.844***	0.215
Disability pensioner	-0.953	0.162	-0.936***	0.161	-1.036	0.154	-1.017***	0.156
Pensioner	-0.568	0.163	-0.545***	0.162	-0.577	0.152	-0.523***	0.153
Self-employed	0.243	0.256	0.235	0.253	0.143	0.229	0.090	0.225
Student	-0.454	0.591	-0.488	0.573	-0.891*	0.497	-1.081**	0.497
Other inactive	-1.250	0.181	-1.269***	0.179	-1.374	0.170	-1.361***	0.170
<i>Other personal characteristics:</i>	Yes		Yes		Yes		Yes	
Constant	3.223	0.223	3.129	0.224	3.175	0.209	2.843	0.297
Adjusted R ²	0.1770		0.1839		0.1797		0.1833	
F ratio	22.580		22.87		28.85		19.79	
Observations	2545		2545		3097		3097	

* denotes significance at 10% level, ** denotes significance at 5 % level, **bold** denotes significance at 1% level. The models have been corrected for heteroscedasticity, using the Huber/White or sandwich estimator of variance.

Base categories: 3rd quintile, employee

Other personal characteristics: educational level, gender, ethnicity, age, marital status, number of children, region, religiosity

The non-monetary assets of the households do not seem to notably influence the level of satisfaction with income. The inclusion of assets and amenities into the equations does not increase substantially the models' ability to describe the variance of the satisfaction score. In addition, the coefficients of the assets are in nearly all cases insignificant, indicating that most of these properties have no significant relationship with satisfaction with income.

In sum, savings are positively correlated to satisfaction with income. Savings seem to provide useful additional information in understanding satisfaction with current income: income stock does influence the assessment of income flow. This is much less so in case of household assets. This is not surprising, since savings are resources, which are probably

more linked to current income position. Savings may be income, which is not spent yet. Savings can also be more easily mobilised if there is need for it, they are more likely provide a source for pooling of incomes over time.

Age and religiosity matter

Old age is positively correlated with satisfaction, accounting for a series of personal characteristics. The coefficient of the age group of 63 years or over is significant at the 1% level and has a positive sign in both years (Table 6.2). Considering, however, that this is a pensioner age group, and overwhelmingly consists of pensioners (86-90% respectively), the negative coefficient of the pensioner variable has to be taken into account. Elderly pensioners still tend to be somewhat more satisfied with their incomes than the reference group of 40-49 year-old employees, accounting for income and other factors. The interpretation for this can be only speculative, the elderly might enjoy the relative stability of their pension income (compared to both other social incomes in general and earnings for many), or they may have lower material aspirations. It is possible to speak about causality in the relationship of age and subjective well-being. We can be certain that the relationship has a single direction, because satisfaction cannot influence age.

Religiosity proves to be consistently a source of contentment in this material dimension, *ceteris paribus*. The religious (churchgoers) are on average more satisfied with their income situation than those who are not. The size of the coefficient is small, however, thus religiosity matters less than income, labour market status or old age in explaining levels of satisfaction with income. This finding implies that religious people may have specific preferences, possibly having lower material aspirations. Recently a small, but increasing economic literature suggests that identity, or attitudes do influence economic outcomes (Akerlof and Kranton 2000; Ng and Wang 2001), including people's utility, measured as self-reported happiness (Di Tella and MacCulloch 1998). There is very limited evidence on the relationship between religiosity and subjective well-being. This finding suggests that religiosity as a specific attitude affects people self-reported well-being.

Ethnicity is not significant in either years (see Table 6.2). Ethnicity thus does not refer to any personality feature, other things being equal, which may be accountable for the conversion of objective financial conditions into satisfaction with income.

Relationship between income and satisfaction with income

How much does income explain variation in the level of satisfaction with income? What is the relationship between objective and subjective well-being in this respect? As presented by Table 6.6, income and personal characteristics together can explain about 17-18% of the variance in satisfaction with income (Model B). As expected, model B, with the inclusion of education and labour market status gives a better approximation of actual income than simply using observed income captured by the snapshot data, like in model A. Individual's income share also contributes substantially to the improvement of the model, indicating that satisfaction indeed is partly driven by the individual's contribution to the common household budget. Savings and assets also have some, although minor effect. Savings appear to be somewhat more significant than assets and household amenities for the positive assessment of income situation. In sum, there is a clear, although moderate correlation between objective and subjective dimensions of well-being.

Table 6.6 Goodness of fit of various models of satisfaction with income

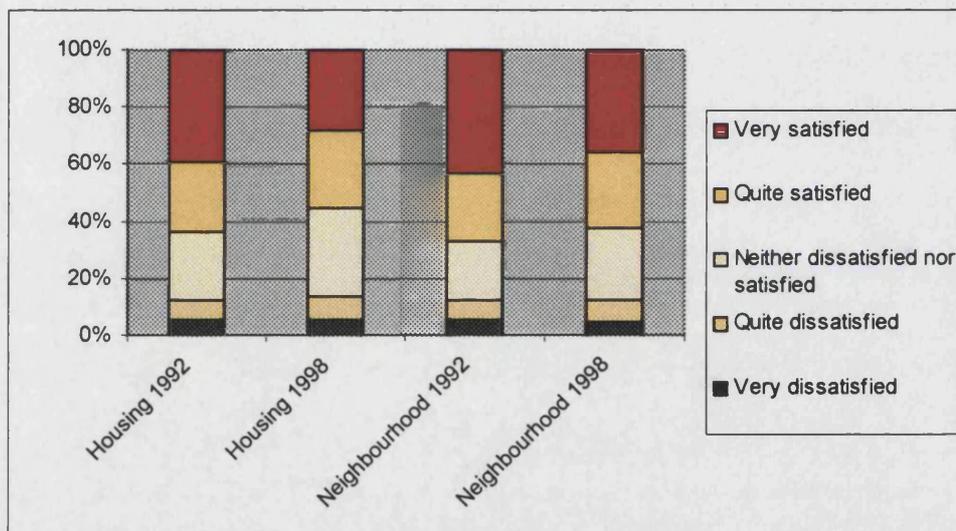
	1992					1998				
	A	B	C	D	E	A	B	C	D	E
Income	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Personal characteristics, including labour market status and educational level		✓	✓	✓	✓		✓	✓	✓	✓
Individual's income share within total household income			✓					✓		
Savings				✓					✓	
Assets and household amenities					✓					✓
Explained variance of satisfaction with income, % (Adj. R²)	9.1	16.7 (16.6-16.7)	17.9	17.4	17.2	11.0	18.0 (17.7-18.1)	18.6	18.4	18.3

Note: Adj R² of model B varies depending on the sample size (see regression output before: baseline model in Table 6.2, figures in brackets in Tables 6.3-5).

6.3 SATISFACTION WITH HOUSING AND NEIGHBOURHOOD

People tend to be more satisfied with their housing and neighbourhood than with their living standards or income. The mean score of satisfaction with housing and neighbourhood is about twice as much as that of with income, both at the beginning of the transition period and at a later phase (see Figure 5.2 in the previous chapter). The majority of the people tend to be satisfied both with their housing situation and its neighbourhood. As shown in Figure 6.2, over 60% of the population were very satisfied or quite satisfied in 1992. By 1998 their proportion has fallen, but it remained well over 50%.

Figure 6.2 Levels of satisfaction with housing and with neighbourhood



Note: Very satisfied: a score of 9 or 10; quite satisfied: 7-8; neither dissatisfied nor satisfied: 4-6; quite dissatisfied: 2-3; very dissatisfied: 0-1.

Housing

Despite the relatively positive assessment of the housing situation, there is a clear fall in the degree of satisfaction by 1998. As we can see from Figure 6.2, the share of the most satisfied has fallen. A possible explanation may be that those who live in the best housing conditions were strongly affected by comparison effects, by the rich getting richer and investing into their properties. As reported by a recent survey by TARKI, one of the three main reference groups for Hungarians is people in the neighbourhood (Sági 2000). This comparison effect thus may be the strongest for those who live in wealthy areas, where many people became better off.

Correlation between objective housing conditions and subjective well-being is relatively strong. As Table 6.7 shows, the independent variables of the regression analysis explain 23% of the variation of satisfaction. (For comparison, the goodness of fit, measured with adjusted R^2 was between 35% and 42% in the regression model for the determinants of income. See Table 3.5.) Controlling for personal characteristics in the model, the explained variance somewhat increases (see Table 6.8 later).

The main correlates of housing satisfaction are housing value and problems related to housing. The first brings no surprise, *those who live in more expensive housing, tend to be more contented with it. Those who experience housing problems, on the other hand, seem to be markedly more dissatisfied than those who do not.* These problems, first of all dampness, noise or darkness, which are mentioned as the three most frequent ones, seem to bring high dissatisfaction even after controlling for housing value and size.

The multivariate analysis confirms that remaining a tenant by the end of the transition period is a disadvantageous situation. As discussed previously in chapter 4, those who could not buy their homes are more likely to also live in a lower quality housing with major shortcomings. As Table 6.7 shows in 1992 tenant status in itself did not influence satisfaction in either way compared to owner-occupiers. By 1998 the coefficient of the tenant variable became significant with a negative sign. Controlling for the value of housing and the occurrence of housing problems *tenants were on average markedly less satisfied with their housing situation than owner-occupiers.* One possible reason may be a feeling associated with the vast housing privatisation of the 1990's, tenants may have felt themselves to have been left behind. Public housing became residual and they may have felt they became marginalized.

Housing value, as expected, is positively correlated with satisfaction with housing. In order to avoid the information loss due to a large number of missing cases, which occurred for the housing value variable, I have included a dummy variable, taking on the value of 1 if the household denied response for this specific question. The inclusion of this dummy variable thus enabled to keep nearly a thousand cases in the models. The housing value dummy variable is significant at 1% level and has a very large positive coefficient, indicating that those who did not reveal their estimates for the value of their own dwelling

tend to be very contented, controlling for a series of other factors. This suggests that there was a systematic bias in the denial of the response, most likely affecting those who live in housing with excellent attributes.

Table 6.7 Satisfaction with housing – OLS regression

	1992				1998			
	I		II		I		II	
	Coef.	Std. Err	Coef.	Std. Err	Coef.	Std. Err	Coef.	Std. Err
Ownership: tenant	-0.073	0.112	0.075	0.117	-0.973	0.201	-0.917	0.208
other	-1.246	0.251	-1.273	0.251	-0.634**	0.316	-0.649**	0.323
Housing value (ln)	0.632	0.042	0.662	0.048	0.421	0.062	0.353	0.065
Housing value dummy for missing cases	8.628	0.609	9.100	0.691	5.758	0.922	4.865	0.956
Living space per person (ln)	0.722	0.081	0.533	0.091	0.850	0.084	0.889	0.096
Major housing problems:								
moderate	-1.258	0.099	-1.222	0.101	-1.425	0.144	-1.380	0.143
rather serious	-2.419	0.186	-2.289	0.189	-2.474	0.228	-2.383	0.227
serious	-3.690	0.264	-3.577	0.270	-3.515	0.283	-3.406	0.279
Income: (quintile group)								
1 st			-0.644	0.126			-0.495	0.143
2 nd			-0.273**	0.114			-0.173	0.131
4 th			-0.100	0.107			0.159	0.124
5 th			-0.079	0.107			0.233*	0.129
Settlement type:								
town			-0.167**	0.095			0.135	0.109
county centre			-0.183	0.125			0.184	0.125
capital			-0.583	0.103			-0.079	0.132
Number of children:								
1			-0.339	0.100			0.177	0.128
2			-0.591	0.112			0.041	0.141
3 or more			-0.038	0.204			0.278	0.234
Constant	-3.457	0.619	-2.766	0.671	-1.647*	0.928	-0.878	0.933
Observations	5146		5146		3402		3402	
F ratio	166.2		81.88		120.12		58.55	
Adjusted R ²	0.2311		0.2434		0.2251		0.2321	

* denotes significance at 10% level, ** denotes significance at 5 % level, **bold** denotes significance at 1% level. The models have been corrected for heteroscedasticity, using the Huber/White or sandwich estimator of variance.

Base categories: owner-occupier, no major housing problems, 3rd income quintile, village or small town, no children

It may appear puzzling that the poorest households tend to be dissatisfied, even after accounting for differences in ownership status, housing value, quality problems and living space. Financial problems with rent payments seem to be significant when included in the model, nevertheless, the coefficient of the bottom quintile group remains negative and it is not significantly different. This implies that there is an unobserved feature of the situation of the poor, which affects their satisfaction. This might be related to indebtedness, of which there is not adequate information here. There may be unobserved neighbourhood

specific features of the housing condition as well. Alternatively the poor may be affected negatively by the limited future prospects for upgrading their homes, improving their housing quality or possibly buying their own homes if they are currently tenants.

There is a limited evidence that the higher satisfaction of people in rural areas. In 1992 most of those who lived in cities were comparatively less contented with their housing than the reference category of villages and small towns. In 1998 there was no sign for the existence of a similar rural urban divide.

Table 6.8 Satisfaction with housing, objective circumstances and personal characteristics – OLS regression

	1992		1998	
	Coef.	Std. Err	Coef.	Std. Err
Ownership: tenant	0.070	0.118	-0.710	0.213
other	-1.120	0.247	-0.640**	0.318
Housing value (ln)	0.653	0.051	0.297	0.064
Housing value dummy for missing cases	8.885	0.732	4.033	0.948
Living space per person (ln)	0.599	0.101	0.912	0.108
Major housing problems:				
moderate	-1.201	0.101	-1.389	0.145
rather serious	-2.206	0.188	-2.464	0.218
serious	-3.454	0.288	-3.267	0.288
Income: (quintile group)				
1 st	-0.645	0.129	-0.359**	0.145
2 nd	-0.323	0.114	-0.178	0.132
4 th	0.083	0.105	0.165	0.124
5 th	0.234**	0.109	0.278**	0.137
Settlement type:				
town	-0.086	0.096	0.146	0.110
county centre	-0.015	0.127	0.222*	0.126
capital	-0.451	0.107	-0.070	0.141
Number of children:				
1	0.088	0.107	0.314**	0.133
2	0.033	0.139	0.353**	0.171
3 or more	0.623	0.221	0.593**	0.251
Female	0.104	0.077	-0.061	0.091
Ethnicity (Gypsy)	-0.302	0.240	-0.663**	0.310
Other personal characteristics	Yes		Yes	
Constant	-2.896	0.735	-0.104	0.939
Observations	5000		3291	
F ratio	48.63		31.73	
Adjusted R ²	0.2727		0.2483	

* denotes significance at 10% level, ** denotes significance at 5 % level, **bold** denotes significance at 1% level. The models have been corrected for heteroscedasticity, using the Huber/White or sandwich estimator of variance.

Base categories: owner-occupier, no major housing problems, 3rd income quintile, village or small town, no children

Other personal characteristics include age, educational level, labour market status, marital status and religiosity

There is no pure gender effect, and there is only limited evidence for an ethnic difference. The coefficient for females is not significant in either year. This suggests that there is no gender difference over and above the objective housing conditions and other observable personal characteristics. Tentatively this might imply that there is no systematic personality difference between the two sexes in the subjective assessment of the quality of housing. The ethnicity coefficient is not significant in 1992, but it has become so in 1998 and shows a negative sign. There is no clear explanation why ethnicity could bring dissatisfaction over and above the housing value and housing problems. Possible interpretations include a neighbourhood disadvantage not observed by the right hand side variables of the model, or a systematic mismatch between the housing supply and the demands of the Gypsy, e.g. due to greater family size.

Neighbourhood

Similarly to satisfaction with housing, contentment with the neighbourhood has fallen over time. This is primarily due to the decrease in the number of those who were very satisfied (Figure 6.2). Although the patterns of satisfaction with housing and that of with neighbourhood show great similarity, people seem to make a clear distinction between these two. Correlation is moderately strong: 0.47 in 1992, which slightly increases to 0.52 by 1998 (see Tables 5.2-3 in the previous chapter). Thus, being satisfied with one's housing situation does not necessarily mean satisfaction with the environment as well.

Tenants are markedly less satisfied with their neighbourhood than owner-occupiers (see Table 6.9). The relative dissatisfaction has increased over time. This coincides with earlier findings of the relatively worse position of tenants in terms of satisfaction with housing. Tenants thus, at the end of the transition process, following a large-scale housing privatisation, are worse off in terms of objective housing conditions (as discussed in chapter 4), which is well reflected in their lower levels of satisfaction with both their housing and their neighbourhood.

Table 6.9 Satisfaction with neighbourhood and housing ownership

	1992		1998	
	Average satisfaction	N	Average satisfaction	N
<i>Housing ownership</i>				
Owner-occupiers	7.57	4007	7.13	3446
Tenants	5.99	1035	5.28	203
Other	5.67	231	5.50	126
<i>Total</i>	7.29	5273	7.01	3775

Inhabitants of Budapest consistently seem to be consistently less satisfied with their neighbourhood (see Table 6.10). Despite the general prosperity, the higher average personal incomes in the capital, it does not seem to be the best place to live in. By the end of the transition, *residents of villages or small towns became more discontented*. It may well be related to the increasing unemployment, which is particularly high in certain small settlements, causing a major disruption in the social patterns of local life. Rural areas, especially areas with high unemployment, also seem to have hardly benefited from the large inflow of foreign direct investment into the country, thus did not gain from its positive impact on local labour markets either (Fazekas 2000).

Table 6.10 Satisfaction with the neighbourhood and settlement type

	1992		1998	
	Average satisfaction	N	Average satisfaction	N
<i>Settlement type</i>				
Village or small town	7.72	1636	5.93	1442
Town	7.28	1167	7.40	965
County centre	7.06	576	7.12	707
Capital	5.57	1894	5.47	662
<i>Total</i>	7.29	5273	7.01	3776

Neighbourhood problems, not surprisingly, seem to bring dissatisfaction (Table 6.11). Major factors of distress seem to be air pollution and noise (in 1992) and untidy, dangerous area (in 1998).

Table 6.11 Satisfaction with the neighbourhood and reported neighbourhood problems

<i>Neighbourhood problem</i>	1992		1998	
	<i>Average satisfaction</i>	<i>N</i>	<i>Average satisfaction</i>	<i>N</i>
No	7.69	3573	7.35	2777
Air pollution	5.40	85	4.46	38
Noisy	5.94	297	5.99	168
Air pollution and noisy	5.09	59	4.47	8
Untidy, dangerous	5.36	52	3.13	36
Housing quality problem	5.55	1142	5.09	430
<i>Total</i>	7.30	5208	7.04	3457

Table 6.12 Satisfaction with neighbourhood, OLS regression

	1992				1998			
	I		II		I		II	
	Coef.	Std. Err	Coef.	Std. Err	Coef.	Std. Err	Coef.	Std. Err
Neighbourhood problem:								
air pollution	-2.403	0.380	-1.913	0.390	-2.962	0.536	-2.213	0.483
noisy	-1.595	0.215	-1.294	0.207	-1.274	0.251	-0.984	0.244
air pollution and noisy	-2.242	0.483	-2.100	0.496	-2.519	0.946	-2.229	1.046
untidy, dangerous	-2.269	0.440	-1.845	0.441	-3.990	0.525	-3.216	0.507
housing quality problem	-1.043	0.109	-0.849	0.108	-1.256	0.155	-0.879	0.158
Settlement type:								
town	-0.492	0.104	-0.404	0.103	0.264	0.111	0.230	0.113
county centre	-0.633	0.132	-0.399	0.135	0.061	0.126	0.230	0.131
capital	-0.915	0.096	-0.774	0.112	-0.585	0.138	-0.571	0.149
Housing value (ln)			0.240	0.051			0.333	0.068
Housing value dummy for missing cases			3.530	0.725			4.738	1.003
Living space per person (ln)			0.249	0.092			0.664	0.105
Ownership:								
tenant			-0.974	0.135			-1.016	0.236
other			-0.596	0.228			-0.211	0.286
Income: (quintile group)								
1st			-0.297**	0.133			-0.125	0.154
2nd			-0.075	0.126			-0.020	0.134
4th			-0.420	0.123			-0.011	0.134
5th			-0.259**	0.120			0.112	0.135
Number of children:								
1			-0.477	0.110			0.129	0.133
2			-0.780	0.123			-0.255	0.154
3 or more			-0.055	0.200			0.474	0.258
Constant	8.061	0.063	4.338	0.713	7.357	0.076	0.324	0.967
Observations	5148		5148		3407		3407	
F ratio	48.08		30.7		28.29		20.14	
Adjusted R ²	0.0706		0.1118		0.0785		0.1191	

* denotes significance at 10% level, ** denotes significance at 5 % level, **bold** denotes significance at 1% level. The models have been corrected for heteroscedasticity, using the Huber/White or sandwich estimator of variance.

Base categories: owner-occupier, 3rd income quintile, village or small town, no children

The regression analysis confirms that there is a significant and moderately strong relationship between objective and subjective measures of well-being. Neighbourhood problems seem to be major correlates of satisfaction with neighbourhood, having accounted for differences in housing value, ownership, region and other characteristics (Table 6.12). Especially those who live in untidy, dangerous areas, and those, who suffer from air pollution said themselves to be dissatisfied by the end of the transition. *Residents of the capital are markedly less satisfied with their neighbourhood* than those of small settlements, ceteris paribus. In contrast to the somewhat unclear income pattern in 1992, there is no

net income effect in 1998. Tenants are less satisfied than owner-occupiers, the coefficient is negative and significant at 1 % level in both years. The relative dissatisfaction of tenants has not increased over time compared to the reference group.

Housing value and the dwelling's living space are positively related to satisfaction. This may show that property value is partly an indicator of the quality of the neighbourhood. The high level of significance and the large size of the housing value dummy for missing cases implies that many of those who are very contented did not reveal their housing value. This suggests that the denial in response to housing value may have had a systematic pattern, and occurred the most frequently in case of homes in outstanding or possibly luxurious environment.

Campbell, Converse and Rodgers have found similar relationship between neighbourhood characteristics and satisfaction in the US in their classic study (1976, pp 247-248). Residents who live in neighbourhoods, which are 'well kept up' were found to be more satisfied than residents in more rundown environment. Also, people who live in big cities were less satisfied with their housing than others in smaller places.

Table 6.13 Satisfaction with neighbourhood, objective circumstances and personal characteristics - OLS regression

	1992		1998	
	Coef.	Std. Err	Coef.	Std. Err
Neighbourhood problem:				
air pollution	-1.778	0.399	-2.002	0.481
noisy	-1.270	0.210	-1.073	0.238
air pollution and noisy	-1.921	0.520	-2.251**	0.994
untidy, dangerous	-1.687	0.426	-3.230	0.539
housing quality problem	-0.810	0.111	-0.923	0.166
Settlement type:				
town	-0.312	0.104	0.236**	0.115
county centre	-0.192	0.137	0.258*	0.136
capital	-0.625	0.116	-0.546	0.160
Housing value (ln)	0.269	0.054	0.326	0.070
Housing value dummy for missing cases	3.794	0.765	4.595	1.025
Living space per person (ln)	0.210**	0.100	0.568	0.121
Ownership:				
tenant	-1.050	0.136	-0.815	0.238
other	-0.383*	0.227	-0.155	0.291
Income: (quintile group)				
1st	0.230*	0.135	-0.043	0.159
2nd	0.373	0.135	-0.005	0.158
4th	0.120	0.141	0.005	0.161
5th	0.476	0.143	0.244	0.171
Number of children:				
1	-0.040	0.119	0.202	0.142
2	-0.092	0.146	-0.117	0.183
3 or more	0.648	0.227	0.687**	0.274
Female	0.024	0.085	0.070	0.098
Ethnicity (Gypsy)	-0.595	0.264	-0.766**	0.315
Other personal characteristics	Yes		Yes	
Constant	3.385	0.738	0.374	0.981
Observations	5003		3296	
F ratio	21.18		11.51	
Adjusted R ²	0.1393		0.1294	

* denotes significance at 10% level, ** denotes significance at 5 % level, **bold** denotes significance at 1% level. The models have been corrected for heteroscedasticity, using the Huber/White or sandwich estimator of variance.

Base categories: owner-occupier, 3rd income quintile, village or small town, no children

Other personal characteristics include age, educational level, labour market status, marital status and religiosity

Similar to satisfaction with housing, there is no net gender effect, although there is more pronounced ethnic difference (see Table 6.13). Women are not significantly different in their satisfaction with neighbourhood from men, controlling for neighbourhood characteristics and a number of personal characteristics. The Romany tend to be less satisfied with their neighbourhood. This may suggest that there may be a specific

unobservable neighbourhood feature, which specifically affects the Gypsy population. Alternatively, they might have specific preferences, and as a result similar conditions could make them more dissatisfied. The detailed assessment of these issues could be a challenging direction of future research, including more specific data on neighbourhoods, preferably including data on local public services, local unemployment and crime rates.

Relationship between housing, neighbourhood and satisfaction

How well do objective housing and neighbourhood characteristics explain people's satisfaction with their housing and neighbourhood? As Table 6.14 shows housing conditions, ownership and other characteristics explain 20-24% of the variance of satisfaction with housing (for details on model A and B see Table 6.7, for more on model C see Table 6.8). Neighbourhood characteristics available in the dataset and personal characteristics predict satisfaction with neighbourhood to a much lower extent, explained variance is only 10-11% (Table 6.15, for details of the models see Tables 6.12 and 6.13). This may be largely due to that neighbourhood characteristics are observed less well than housing characteristics. Objective measures may be less related to subjective ones in this case, because they are less adequate. In conclusion, as with the findings referring to income, *there is a moderate correlation between objective conditions and subjective measures related to housing and neighbourhood.*

Table 6.14 Housing and satisfaction with housing

	1992			1998		
	A	B	C	A	B	C
Ownership	✓	✓	✓	✓	✓	✓
Housing quality	✓	✓	✓	✓	✓	✓
Income		✓	✓		✓	✓
Settlement type		✓	✓		✓	✓
Number of children		✓	✓		✓	✓
Other personal characteristics			✓			✓
Explained variance of satisfaction with housing (Adj. R²)	23%	24%	27%	23%	23%	25%

Table 6.15 Goodness of fit for various models of satisfaction with neighbourhood

	1992			1998		
	A	B	C	A	B	C
Neighbourhood problems	✓	✓	✓	✓	✓	✓
Settlement type	✓	✓	✓	✓	✓	✓
Housing quality		✓	✓		✓	✓
Ownership		✓	✓		✓	✓
Income		✓	✓		✓	✓
Number of children		✓	✓		✓	✓
Other personal characteristics			✓			✓
Explained variance of satisfaction with neighbourhood (Adj. R²)	7%	11%	14%	8%	12%	13%

6.4 SATISFACTION WITH FAMILY RELATIONS

People tend to be very contented with their family relations, as presented earlier, however, it seems to influence their overall happiness only to a minor extent. In 1992 80% of the people were highly satisfied with their relationships within the family¹²⁰. Although in 1998 this number is somewhat lower, 74%, the magnitude of the contentment remains outstanding. Not less than around half of the people (54% in 1992 and 46% in 1998) say that they are fully satisfied with their relationships within the family, giving a maximum score of 10. It means that every second Hungarian adult believes that they have a family life, which gives them as much satisfaction as they can possibly expect. This level is not outstanding in international comparison, however. A very similar degree of contentment has been found in East- and West-Germany in the early 90s (Andorka 1993).

Marital status seems to play a clear role. Those who are married are consistently more satisfied than others, including cohabiting couples (see Table 6.16). Among those who do not have a partner, the widowers say themselves the most contented, followed by those who are single. Divorced people are the least satisfied¹²¹. The interpretation of the survey question, whether what people mean by their family relationships, is subject to the individuals. It probably includes marital satisfaction for those who are married, the assessment of relationship with those family members living in the same household, which

¹²⁰ Highly satisfied means here that the respondent gave a score of either 8, 9 or 10 on a scale of 0 to 10.

means children in most cases. It might also refer to the extended family, grandparents or brothers and sisters living in different households. Primarily, however, it is most likely to be driven by marital satisfaction. The results presented here seem to confirm this assumption.

Table 6.16 Satisfaction with family relationships by marital status

<i>Marital status</i>	<i>Mean score of satisfaction</i>	
	<i>1992</i>	<i>1998</i>
Married	8.79	8.58
Cohabiting	8.26	7.85
Widow/er	8.51	8.13
Single	8.24	8.12
Divorced	7.93	7.16

The firmest evidence for 'social division' in terms of satisfaction with family life is interestingly refers to the Romany ethnicity, while age and gender differences are not consistent. The Gypsy ethnic group tends to be less satisfied in both years, as table 6.17 shows. There is no sufficient evidence for the change or satisfaction with family relationships over the life cycle. The main finding is that older age groups, those with 50 years or more, had the highest satisfaction in 1992. No such pattern exists in 1998, and the differences between the group means are not significant, as the outcomes of t-tests indicate. The literature on *marital satisfaction* suggests that there is a U-shape pattern, prevalent in other countries. Existing evidence suggest that couples are the happiest in their honeymoon and the empty nest period (for reviews of the literature see Michalos 1986; Argyle 1999). In Hungary, women are significantly more contented with family than men in 1998, but no such difference exists in 1992.

¹²¹ The differences between the mean satisfaction scores by marital status has been tested and found significant at 5% level. The only exception is the difference between the widows and the single in 1998, where I could not reject the null hypothesis that the means are equal.

Table 6.17 Satisfaction with family relationships by age, gender and ethnicity

	<i>Mean score of satisfaction</i>	
	1992	1998
Age (years):		
17-29	8.44	8.34
30-39	8.52	8.41
40-49	8.43	8.19
50-62	8.75	8.31
63+	8.84	8.32
Male	8.60	8.20
Female	8.61	8.40
Gypsy	7.89	7.69
Non-Gypsy	8.65	8.35
Total	8.61	8.31

Relative satisfaction of women and the elderly

Explaining why certain people are more contented with family relations, however, seems to be rather problematic. Due to the rather skewed distribution of responses (about half of the people said themselves to be fully satisfied), I dichotomised the satisfaction variable and used a logit model to describe the characteristics of those who are fully satisfied (Table 6.18)¹²². The fully satisfied were defined as those who gave a score of 10 on a scale from 0 to 10. The models used the standard set of variables, which have been used so far, including a series of personal characteristics, such as marital status and number of children. These variables altogether, however, could only very poorly explain the probability of being fully satisfied. Pseudo R^2 , although it is probably most widely used goodness of fit statistics, has no simple interpretation like R^2 . Using very similar explanatory variables – the same ones, except labour market status, where the occupation of head was used – in a classis study on Americans Campbell et al. find that these variables explain 8.8% of the total variance of satisfaction with family life (Campbell et al. 1976, p.338)¹²³.

¹²² The normality of the dependent variable is a pre-requisite for OLS since the distribution of the dependent variable governs that of the error term - and the assumptions about the latter is that they are independent and identically distributed (normally distributed) (i.i.d) with mean 0 and variance σ^2 .

¹²³ Their methodology is multiple classification analysis.

Table 6.18 Satisfaction with relations within the family, logit model

Dependent variable: fully satisfied with family relations	1992				1998			
	I		II		I		II	
	Coef.	Std. Err	Coef.	Std. Err	Coef.	Std. Err	Coef.	Std. Err
Marital status:								
married	0.258**	0.110	0.286**	0.115	0.688	0.133	0.698	0.139
divorced	-0.069	0.154	-0.001	0.157	-0.042	0.181	-0.024	0.186
widow/er	-0.094	0.152	-0.041	0.157	0.668	0.170	0.672	0.175
Number of children:								
1	0.074	0.089	0.089	0.090	-0.171	0.104	-0.160	0.105
2	-0.052	0.108	-0.036	0.109	-0.344**	0.137	-0.316**	0.139
3 or more	-0.042	0.162	0.021	0.166	-0.065	0.195	-0.047	0.198
Age:17-29 yrs	-0.003	0.117	-0.015	0.119	0.317**	0.142	0.293**	0.146
30-39 yrs	-0.085	0.110	-0.096	0.110	0.167	0.133	0.168	0.134
50-62 yrs	0.397	0.107	0.372	0.115	0.168	0.113	0.145	0.123
63 and more	0.534	0.116	0.527	0.147	0.308**	0.123	0.278*	0.158
Female	0.205	0.065	0.205	0.066	0.137*	0.074	0.143*	0.075
Ethnicity (Gypsy)	-0.436**	0.171	-0.296*	0.177	-0.089	0.191	-0.068	0.196
Lives in Budapest	-0.222	0.063	-0.249	0.065	-0.124	0.096	-0.143	0.097
Education:								
vocat. training	0.229	0.086	0.215**	0.089	0.275	0.095	0.284	0.098
secondary	-0.072	0.084	-0.114	0.088	0.175*	0.098	0.152	0.102
higher edu	-0.294	0.107	-0.342	0.113	0.185	0.129	0.140	0.138
Religious	0.069	0.081	0.070	0.082	0.054	0.090	0.047	0.090
Unemployed			-0.122	0.159			-0.105	0.193
Disability pensioner			0.050	0.151			0.094	0.145
Pensioner			0.056	0.123			0.088	0.134
Self-employed			-0.034	0.159			0.250	0.187
Student			0.222	0.175			0.160	0.190
Other inactive			0.043	0.136			0.085	0.132
Income: 1 st quintile			-0.337	0.106			0.016	0.117
2 nd quintile			-0.088	0.099			-0.059	0.109
4 th quintile			-0.002	0.099			0.052	0.107
5 th quintile			-0.031	0.100			0.124	0.116
Constant	-0.237*	0.138	-0.180	0.161	-0.967	0.157	-1.041	0.182
Observations	5080		5080		3634		3634	
Wald chi2	144.9		161.58		95.73		102.32	
Prob > chi2	0		0		0		0	
Pseudo R ²	0.0228		0.0256		0.0202		0.0214	
Log likelihood	-3422.63		-3413.01		-2456.98		-2453.81	

* denotes significance at 10% level, ** denotes significance at 5 % level, **bold** denotes significance at 1% level. The models have been corrected for heteroscedasticity, using the Huber/White or sandwich estimator of variance.

Base categories: single, no children, 40-49 years, elementary education or below, employee, 3rd income quintile

Married people, people over 62 years and women tend to be consistently more satisfied with their family relationships, accounting for other personal characteristics. Marriage is highly significant and has a positive coefficient in both years. This implies that married people are more likely to be fully contented with their family lives than the reference category, single people. This is in line with bivariate relationship presented earlier (see

Table 6.14). The divorced, however, do not seem to have lower satisfaction than those who are single, other things being equal. There is partial support for a life-cycle pattern. In 1998 the youngest and the oldest age groups were more contented than their middle-aged compatriots. Thus, those who are most likely either starting their own family lives and those who live in the 'empty nest' phase are significantly more contented. There is only partial confirmation for this pattern in 1992, only the relative satisfaction of those over 50 years is prevalent. The number of children in itself does not have a consistent effect. More specific characteristics of the children may explain some of the variation of the satisfaction measure. Income situation has no consistent relationship with satisfaction with family life. In 1998 none of the income groups had significantly distinct pattern of satisfaction. There is no evidence for ethnic differences, accounting for other personal characteristics.

People who have little contact with family and friends are less likely to be very satisfied with their family life, as expected, controlling for marital status and other personal characteristics. The other indicator of 'social capital', the existence of personal friendships, however, is not significant. This variable is a dummy, indicating an extreme situation when someone declared that they have no friends with whom they could discuss personal matters at all. (I have also tested an alternative measure, using various categories indicating the number of friends, but none of these categories were significant either.) The lack of significance of friendships might be interpreted that there is *no such positive externality* of having close friendship on family life, which is not captured already by the other variable, indicating the frequency of contacts. (Note that the variables themselves are not strongly associated, thus there is no perfect multicollinearity.) The direction of causality between self-assessed family life and the significant variable, indicating small frequency or lack of social contacts, however, is far from being obvious. Most likely the former variable refers to co-habiting family members, the survey question mentions 'family', while social contact variable refers to wider circles, the survey talks about 'relatives' and 'friends' here. Shortfalls in social contacts may indicate that people who have inadequate family relations are less likely to want to meet others, but also that an intense social life improves the quality of the small family life, which is the direction of the relationship implied here by the model.

Table 6.19 Satisfaction with relations within the family, social contacts and fatalism, logit model

Dependent variable: fully satisfied with family relations	1998					
	I		II		III	
	Coef.	Std. Err	Coef.	Std. Err	Coef.	Std. Err
Little contact with relatives or friends			-0.333	0.075	-0.272	0.076
No friends			0.006	0.079	0.058	0.080
Fatalism					-0.110	0.012
Marital status:						
married	0.717	0.142	0.692	0.143	0.585	0.148
divorced	-0.048	0.189	-0.099	0.190	-0.079	0.195
widow/er	0.721	0.181	0.678	0.183	0.784	0.188
Number of children:						
1	-0.144	0.106	-0.104	0.107	-0.131	0.108
2	-0.278**	0.139	-0.277**	0.140	-0.265*	0.140
3 or more	-0.076	0.204	-0.016	0.205	-0.118	0.209
Age: 17-29 yrs	-0.196	0.152	-0.217	0.153	-0.130	0.156
30-39 yrs	-0.279*	0.149	-0.249*	0.150	-0.120	0.153
50-62 yrs	-0.215	0.164	-0.171	0.166	-0.040	0.169
63 and more	-0.032	0.195	0.004	0.196	0.189	0.202
Female	0.107	0.077	0.102	0.077	0.169**	0.079
Ethnicity (Gypsy)	-0.180	0.204	-0.178	0.204	-0.090	0.205
Lives in Budapest	-0.114	0.099	-0.137	0.100	-0.120	0.101
Other personal characteristics	Yes		Yes		Yes	
Constant	-0.673	0.167	-0.431**	0.177	1.050	0.234
Observations	3472		3472		3472	
Wald chi2	97.05		114.39		194.17	
Prob > chi2	0		0		0	
Pseudo R ²	0.0214		0.0257		0.0462	
Log likelihood	-2339.96		-2329.68		-2280.662	

* denotes significance at 10% level, ** denotes significance at 5 % level, **bold** denotes significance at 1% level. The models have been corrected for heteroscedasticity, using the Huber/White or sandwich estimator of variance.

Base categories: single, no children, 40-49 years

Other personal characteristics include educational level, labour market status, and religiosity

What are the major explanatory factors for the subjective assessment of family life, if, as we saw, demographic characteristics are only of limited relevance? Campbell and his colleagues show that primarily the perception of family relationships explain satisfaction (altogether 20.4%), first of all perceived relationship to spouse, then relationship to children (1976, p. 338). This is however, explaining a subjective measure with other subjective attributes. Both of these (satisfaction with family life and perceived relationship to spouse) may be related to other variables, first of all, personality. This seems to be supported by the current analysis. As we can see, the inclusion of a fatalism variable (describing powerlessness by a series of measures) the fit becomes twice as good (see Table 6.19). This implies that *other personality related variables are also expected to be important.*

According to the literature, personality traits do powerfully predict life events and general SWB (e.g. Suh et al. 1996. See also discussion in Chapter 5.). This appears to be the case also in a specific and rather personal domain of satisfaction, that of family life.

6.5 CONCLUSION

The findings of this chapter have provided a systematic analysis of patterns of satisfaction with income, housing, neighbourhood and family life, to my knowledge the first such systematic study on Hungary. Results confirmed that as expected, there is a correlation between objective and subjective measures of well-being. These results thus also seem to have provided a test of validity for measures of satisfaction. The analysis has revealed the strongest relationship between housing and satisfaction with housing, followed by the association between income and satisfaction with income. Family life appears to be an aspect of life most hidden from the eyes of the external investigator: satisfaction can be only rather moderately explained by characteristics such as marital status, age or number of children. As shown, patterns of satisfaction seem to have been largely stable over time, although certain changes in the relative satisfaction of specific social groups are of major importance from the point of view of the focus of this analysis.

There is some evidence for increasing 'meritocracy', or returns to skills over time. People with higher education have become significantly more satisfied with their incomes over time compared to the low educated population group, other things being equal.

Women have become dissatisfied with their incomes by the late 1990s, controlling for labour market status, education and other characteristics. This gender division in subjective well-being has remained even after controlling for personal incomes within the household budget. A possible explanation may be that there is a 'bargaining' within the household, as suggested by the fact that people's income share tend to make a difference in their reported well-being, but it cannot be solely explained by relative income positions. The systematic test of gender differences in terms of the distribution of resources within the household appears to be a challenging direction for future investigation.

There is no similar gender difference related to satisfaction with housing and neighbourhood, and women tend to be more likely to be very contented with their family relations than men, *ceteris paribus*. These findings suggest that women in general are not pessimistic, so there is no 'gender bias' in the personal assessment of objective circumstances. All this makes the relative dissatisfaction of women with their income situation a more intriguing phenomenon.

Ethnicity in itself does not show any particular pattern of subjective well-being in most cases, except that of satisfaction with neighbourhood. Controlling for neighbourhood problems, housing quality, ownership, settlement type and other factors, the Romany population tends to be consistently more discontented with their neighbourhood than the non-Romany population. This seems to suggest that there are certain specific features of the neighbourhood which matter especially for the Gypsy groups. A more specific analysis of neighbourhood features, including for example local labour markets and social services could possibly give insight into the causes of this division. This specific 'area focus' is very limited in existing literature on Hungary.

Higher income groups tend to be more satisfied with their incomes, controlling for other personal characteristics. There is only minor evidence for a change over time in the relative position of specific income groups, the relatively lower satisfaction of the bottom quintile group has somewhat lessened. A somewhat puzzling relationship between income situation and subjective well-being prevails for the housing situation. The poor tend to be dissatisfied with their housing over and above the impact of housing problems, housing value and ownership status. A speculative explanation may be their limited prospects for future improvement of their housing conditions. Alternatively, unobserved neighbourhood characteristics may play a role.

Tenants appear to be not just a disadvantaged group in some sense, but also a group of 'losers'. Tenants tend to be significantly less satisfied with their neighbourhood than owner-occupiers, *ceteris paribus*. This relative disadvantage prevailed both in the early and in the late 1990s. A different measure, satisfaction with housing, however, suggests a deterioration of their well-being. While in 1992 there was no significant difference between tenants and owner-occupiers, the former group became discontent by 1998. This relative dissatisfaction prevails in the multivariate analysis as well, which for example includes

controls for housing quality. This decline in satisfaction of tenants is likely to be attributable to the large scale housing privatisation and their resulting 'marginalised' position.

It seems to be worse to live in cities, particularly in the capital. Controlling for neighbourhood problems and property characteristics, inhabitants of Budapest were significantly less satisfied with their neighbourhood than those who live in rural areas. This effect was significant in both years and also in various models, including an extended one, which accounted for various personal characteristics as well.

"Personality" seems to matter, as some findings suggests. Religiosity and old age are positive associates of satisfaction with income, *ceteris paribus*, indicating that they may indicate specific attitudes to material aspects of life. I have also shown that fatalism is negatively related to satisfaction with family. Fatalism as a personality feature was a crucially important variable in describing patterns of satisfaction, as the improvement of the goodness of fit of the model indicated.

How do people feel in general? How happy, how contented they are with their lives? These are the issues, which seem ultimately occupy not just statesmen, but philosophers, scientists and probably all people. Happiness may be the ultimate goal guiding our lives, and our actions may well promote or foolishly obstruct its achievement. These issues lead us to the next chapter, which will turn towards these fundamental issues analysing general life satisfaction.

ANNEX 6

Table A6.1 Satisfaction with income, ordered logit model

	1992		1998	
	Coef.	Std. Err	Coef.	Std. Err
Income: (quintile group)				
1 st	-0.610	0.096	-0.526	0.114
2 nd	-0.260	0.086	-0.281	0.101
4 th	0.282	0.086	0.359	0.097
5 th	0.642	0.089	0.780	0.110
Labour market status				
Unemployed	-1.824	0.166	-1.645	0.217
Disability pensioner	-0.959	0.124	-0.831	0.129
Pensioner	-0.652	0.104	-0.445	0.121
Self-employed	0.088	0.162	0.240	0.178
Student	-0.749	0.287	-0.688*	0.372
Other inactive	-1.559	0.139	-1.166	0.143
Education:				
vocat. training	0.037	0.081	0.037	0.092
secondary	0.321	0.082	0.409	0.098
higher edu	0.417	0.107	0.725	0.125
Other personal characteristics:				
Female	-0.069	0.059	-0.233	0.071
Ethnicity (Gypsy)	-0.261	0.165	-0.234	0.215
Lives in Budapest	0.054	0.058	-0.101	0.086
Age: 17-29 yrs	0.021	0.104	0.310**	0.130
30-39 yrs	0.047	0.094	0.169	0.117
50-62 yrs	0.242**	0.101	0.153	0.107
63 and more	0.969	0.128	0.672	0.143
Marital status:				
married	0.017	0.109	-0.041	0.122
divorced	-0.213	0.145	-0.313*	0.162
widow/er	0.060	0.141	0.162	0.152
Number of children:				
1	-0.080	0.083	0.189*	0.102
2	0.054	0.100	0.302**	0.126
3 or more	0.014	0.146	0.328*	0.183
Religious	0.236	0.072	0.269	0.087
cut1	-1.668	0.149	-1.915	0.163
cut2	-1.049	0.147	-1.071	0.159
cut3	-0.471	0.146	-0.269	0.157
cut4	0.062	0.146	0.421	0.157
cut5	0.435	0.147	0.871	0.158
cut6	1.412	0.149	1.851	0.161
cut7	1.870	0.150	2.343	0.164
cut8	2.377	0.153	3.002	0.171
cut9	3.248	0.160	3.916	0.189
cut10	3.728	0.168	4.475	0.208

Observations	4904	3149
Wald chi ²	867.16	620.88
Pseudo R ²	0.0466	0.0491
Log likelihood	-10409.2	-6588.4

* denotes significance at 10% level, ** denotes significance at 5 % level, **bold** denotes significance at 1% level. The models have been corrected for heteroscedasticity, using the Huber/White or sandwich estimator of variance.

Base categories: 40-49 years, elementary education or below, employee, single, no children, 3rd quintile

Table A6.2 Summary statistics of housing related variables

<i>Variable</i>	<i>Obs</i>	<i>Weight</i>	<i>Mean</i>	<i>Std. Dev.</i>	<i>Min</i>	<i>Max</i>
1992						
Value of housing	4618	3699	1793028	1953612	0	2.60E+07
Value of housing (ln)	4607	3691	14.0	1.0	5.9	17.1
Living space per person (m ²)	5293	4151	27.4	15.5	4.0	251.0
Living space per person (m ²) (ln)	5293	4151	3.2	0.5	1.4	5.5
1998						
Value of housing	2875	2860	3284552	3986341	0	5.00E+07
Value of housing (ln)	2874	2859	14.7	0.9	5.7	17.9
Living space per person (m ²)	3760	3717	28.8	17.2	2.9	150.0
Living space per person (m ²) (ln)	3760	3717	3.2	0.5	1.0	5.0

HAPPINESS IN TRANSITION

This chapter will analyse the 'distribution' of general life satisfaction, or simply, who are happier than others. Hence, the relationship between personal characteristics, objective circumstances and life satisfaction will be studied. Is the microeconomic structure of happiness different in Hungary from elsewhere? How much has transition affected this structure? Who are the winners and losers of transition?

Previously, in chapter 5, I have shown that *general measures of life satisfaction* are consistently related to *domain satisfactions*. First of all, satisfaction with living standards was the strongest correlate of satisfaction with life so far and with future prospects, followed by satisfaction with income. Although the majority of people tend to be very satisfied with their family lives, this does not seem to contribute significantly to their overall life satisfaction. Following on, chapter 6 addressed the relationship between *objective circumstances, personal characteristics and satisfaction with particular domains of life*. These latter included satisfaction with income, with housing, with neighbourhood and with family relations, in line with main measures of objective well-being analysed earlier in chapter 4. The results found a systematic relationship between objective circumstances and specific measures of satisfaction. I have also shown that it is not just what we have, but also what we are, that matters in explaining satisfaction with income, housing and family life. This chapter will address the final, missing part of the analytical framework, presented in Figure 5.3, that is the relationship between objective well-being, personal characteristics and *satisfaction with life as a whole*. Based on the results of the previous analysis, we can expect consistently prevailing relationships, although the relative size of the specific factors is yet to be discovered.

General life satisfaction can be interpreted as one of various elements of a person's overall well-being. In Sen's terminology, it can be interpreted as a specific functioning. As such, it can contribute with a further dimension to previously examined aspects of people's well-being. Common patterns of satisfaction across social groups may be interpreted as specific 'class positions', based on shared subjective experience (Weber 1947, pp. 424). The main question is whether social inequalities measured in happiness are significantly different from social divisions in terms of other measures of well-being. Is there a gender, or an ethnic division? A further question is to what extent life satisfaction reveals additional information compared to that of income? Does money make people happy? If it does, is

money the main explanation for differences among people in their reported levels of happiness?

Alternatively, general life satisfaction can be thought of as a measure of 'experienced utility', as defined in chapter 5. As such, it can be interpreted as a single measure of individuals' well-being. Different, and challenging questions arise from this approach. How do specific aspects of objective well-being influence utility? What are the tradeoffs between income, labour market situation, housing conditions and social relations? What are the main sources of happiness for people? What is the role of personality and personal characteristics in converting objective well-being into happiness? If personal characteristics are included in the model, is there still a relationship between objective well-being and happiness? This is a fundamental question not just for the validity of subjective well-being (confirming that they are not arbitrary mental constructs), but also for the justification for government action in promoting aggregate welfare by income redistribution and other measures, influencing observable, objective conditions. This possible dualistic interpretation of general life satisfaction, both as one specific aspect of people's well-being, and as a measure of overall welfare as utility, is expected to be fruitful as a concluding piece of our empirical analysis, by providing an opportunity for synthesis.

Various studies have analysed happiness in Western European nations. Multivariate analysis on Eastern European or developing nations is scarce. The analysis below contributes with important evidence on whether life satisfaction is culturally determined and if it is, to what extent. Are Hungarians, socialised in a different social and economic environment in their past, different from citizens in the West? Is their joy driven by specific things or is it pretty much like that of their European fellows?

How much are the patterns of happiness stable and to what extent are they exposed to a social context? The unique historical context of transition provides a useful 'social experiment' in order to test the stability of the social structure of happiness. Are the things which bring contentment to people fundamentally the same? Or do these depend on the social context? Analysis of life satisfaction during transition sheds light on whether how much the pattern of life satisfaction is universal and how much it is particularistic, subject to a social and economic context.

Transition is a unique historic event. This research focuses on a specific case study, Hungary. Therefore it cannot aim for developing a general social theory of happiness during transition. Instead, what it can realistically aim for, is to contribute to understanding the regularities in subjective well-being. It may be possible to confirm or reject existing 'social mechanisms'¹²⁴ observed in rather different contexts and extend or restrict the scope of validity of those. Beyond this, the analysis may tentatively extend the scope of observed regularities in transition, which so far exclusively remained in the domain of 'objective' well-being.

7.1 HYPOTHESIS AND METHODOLOGY

Several scholars have tried to challenge the basic economic assumption that 'money brings happiness', that a higher budget constraint enables people to achieve a higher level of utility. One major challenge came from the field of psychology, for example from the work of Scitovsky in 1976 (Scitovsky 1992), discussed earlier, and more recently, by Kahneman, Tversky and others (Kahneman and Varey 1991). They argue that there is a difference between 'level' and 'change', and stimulation primarily comes from the latter. This would imply that primarily income growth makes people happy, rather than income itself. This idea is the basis for some sociological research, which emphasises adaptation. According to this theory, people's aspirations adapt to their situations, thus subjective well-being only varies according to recent changes (Inglehart and Rabier 1986; Inglehart 1990), e.g. in this case change in their incomes. In addition, as Kahneman and his co-authors argue, people's decision-making diverges from standard economic assumptions due to factors called 'status quo bias', 'endowment effects' and loss aversion (Kahneman and Varey 1991). Others emphasise that satisfaction primarily comes from social comparison effects, the relative standing of an individual compared to his environment or reference group. One major proponent of this view is Easterlin, who claims that while there is a difference between the happiness of the rich and the poor within one country, there is no consistent difference across rich and poor nations (Easterlin 1974). These views together are often referred to as the 'relative position'.

¹²⁴ I use the term 'social mechanism' as defined by Peter Hedström and Richard Swedberg (1998a), which will

Critiques of this position have powerfully demonstrated the flaws of some of these arguments. Veenhoven, recalculating Easterlin's own data, concluded that there is covariation between income and happiness across countries (Veenhoven 1991). He found that there is a curvilinear relationship between income and happiness. Their correlation is largest in poor countries, and it decreases as national income rises. Veenhoven's explanation for this is that happiness greatly depends on the gratification of 'basic biopsychological needs'. Diener, looking at patterns of SWB both within and across countries and also using a much bigger sample of countries than his predecessors, fundamentally challenges the relative standards approach (Diener et al. 1993). He also claims that 'income seems to have some effect on happiness far beyond the level of meeting subsistence needs' (p. 220). In my view there is one major unresolved matter in this debate, that we do not really know with whom people actually compare themselves, what their real reference groups are. Altogether, however, there seems to be strong empirical support for absolute position mattering, and SWB cannot be entirely explained by relative standing.

Hypotheses

Does money bring happiness for Hungarians? It probably does so, unless Hungarians are markedly different from other nations. As presented in chapter 6, income is strongly associated with satisfaction with income. Prior to this, it was shown in chapter 5 that satisfaction with income is positively correlated with both life satisfaction and satisfaction with future prospects. Consequently, it seems plausible to expect a positive relationship between income level and overall satisfaction.

- 1) *The level of overall life satisfaction is expected to rise by income level.*

A major consequence of economic transition is the appearance of unemployment. It was a new phenomenon in its 'Capitalist' form, fundamentally different from the 'joblessness within factory walls', a familiar phenomenon for most Hungarians. Unemployment is clearly identified as a source of unhappiness in the economic literature (Clark and Oswald 1994; Oswald 1997; Winkelmann and Winkelmann 1998). The causal relationship has been

be explained in the final concluding chapter.

reaffirmed by studies using panel datasets (e.g. Winkelmann and Winkelmann 1998). The relationship between unemployment and life satisfaction will be tested. Beyond this, I will extend the analysis to other forms of withdrawal from the labour market. Many people have been pushed away from the market or been discouraged from job search, this may possibly be a source of distress for them, since their withdrawal from the labour market was involuntary. I will particularly look at those who are on 'disability pension' and the 'inactive'.

- 2) *The unemployed are very likely to be unsatisfied. Similarly those whose withdrawal from the labour market was not entirely voluntary, first of all the disability pensioners, but also many of the inactive are expected to be relatively dissatisfied.*

Previous analysis of the housing market has shown that there was a marked social division in housing quality: those of Gypsy ethnicity in particular, but also the poorest income quintile group had significantly worse housing conditions than others. The massive housing privatisation led to a very small public housing sector. Those who remained tenants lived in worse conditions on average than before. This probably indicates that privatisation must have primarily incorporated the better quality properties, and those who lived in worse conditions were the ones who remained tenants by the late 1990s. Housing problems were shown in chapter 6 to be strongly correlated to the self-assessed housing situation. Thus, we can expect housing conditions to be a factor in general life satisfaction as well. Following the limits of adaptation discussed beforehand related to income, we may assume that there is no adaptation to serious housing quality problems, especially to those where certain basic needs are not met. Satisfaction with housing was previously shown to deteriorate over time for those who were tenants, controlling for other housing characteristics. Is housing ownership a possible source of life satisfaction as well over and above the characteristics of the dwelling?

- 3) *People who live in unsatisfactory housing conditions are expected to be discontented.*

Social relations are expected to influence people's happiness, as existing evidence for other countries suggests, but marriage has been shown to have a stronger effect on happiness (see the review of Argyle 1999, pp 359-62). Married people were found to be happier and healthier in general than non-married ones. Various studies have suggested that there is a

causal relationship between marriage and happiness. Social contact with friends, colleagues and neighbours have also been shown to contribute positively to life satisfaction, as Argyle's summary indicates (ibid.). My earlier results indicate that social contact with relatives and friends were strongly related to satisfaction with family life, while a measure of loneliness, the lack of any intimate friend was not.

- 4) *Life satisfaction is expected to be negatively associated with deprivation in social contacts. Marriage is expected to be a source of happiness, while divorce is most likely to be an unhappy state.*

'Personality', measured as fatalism, was a major associate of satisfaction with family life, as shown in chapter 6. Fatalism, a person's limited ability to have control over his life, is most likely to have a negative impact on his general life satisfaction as well. The reason for this may be that such person evaluates systematically worse what they have, what their fate brings to them, or very likely they actually have less favourable conditions of objective well-being due to their lesser ability to pursue their goals.

- 5) *People who report extensive fatalism are expected to have significantly lower levels of general life satisfaction.*

Is it primarily income or is it companionship which brings happiness for people? What is the relative importance of specific indicators of objective well-being in determining overall life satisfaction? Is income, labour market status, housing conditions or social relations the most important factor of life satisfaction? A tentative hypothesis may be that those elements of objective well-being are more likely to influence happiness the most which are relatively short standing. Adaptation is likely to occur, at least to some extent, to extended periods of a certain experience. This logic can be extended to the domains of well-being examined here.

- 6) *Housing quality problems are expected to be weaker correlates of life satisfaction than labour market status or income.*

Religiosity is a new aspect of the analysis introduced here. Why is religiosity part of the models on life satisfaction? Religion influences economic behaviour, for example work

activity, school attendance, and economically important social behaviour, such as marriage, fertility and social misbehaviour [see the review by Iannaccone (1998)]. Religious institutions encourage appropriate behaviour and employ various methods of social control. Hull and Bold (1995) find, using US data, that church membership discourages social misbehaviour by providing property rights enforcement. Freeman (1986) argues that the influence of churchgoing on economic behaviour is at least to some extent a causal impact. Religion was also shown to contribute positively to subjective well-being, including life satisfaction and personal happiness among people in the US (Ellison 1991). The author also finds that 'strong religious faith makes traumatic events easier to bear'(p. 90) The focus of Ellison's analysis is on the multifaceted relationship between religious activity and subjective well-being. The influence of religion on what makes people happy, however, is not discussed.

The collapse of the long-standing atheist regime brought increasing social influence for the churches, but this does not seem to be accompanied with a lasting religious revival in the country. Although the right to free practice of religion existed during socialism, there were numerous legal and administrative constraints which seriously limited the freedom of religion. In the new political system churches were given back much of their properties nationalized after the second world war, including many church schools. Previously banned religious orders became legalized again. Law enabled the establishment of new churches as well. All this suggests that there was an increase in the freedom of religion, including a gradual expansion of the institutionalized religion as a whole.

Formal church affiliation is widely prevalent in the country, but stronger commitment as religious participation is only a minority feature. As data from 1994 shows, three-fourths of the population have some religious affiliation, out of which 24% attend services more than once a month (Need and Evans 2001, pp 236-7)¹²⁵. Data from the World Values Survey show that 23% of Hungarians attended a religious service at least once a month in 1991 (N=999, own calculations). This measure uses a somewhat broader definition of church attendance, thus these two figures appear to be consistent. Despite prevailing problems

¹²⁵ N=1307. The survey data are part of the ESRC funded research programme on Eastern Europe. The authors also warn of the inadequacy of data on religiosity, both for international comparison and also for observing the changes in religiosity over time (Need and Evans 2001). For this reason, it appears difficult to test the hypothesis of 'religious survival' in Eastern European countries.

with such data in general, it seems clear that religious participation in Hungary is about on the same level as in Britain, and much greater than in Russia or in the Czech Republic. Church attendance of Hungarians is, however, much below that of the Polish, the Irish and that of people in the US. The surveys used in this paper (see below) show that 20 and 19% of the people attended a religious service at least once a month in 1992 and 1998, respectively. Less conservative measures from the same dataset show a significant social role of religion. 90-91% of the people have been registered with a religious denomination at their birth, and only around 5% claim themselves to be atheists. The largest church is the Catholic, with over 2/3 of the population, followed by the Calvinist, where 18-19% is registered, and the Lutheran church, with 3-4%.

The collapse of Communism and more openness to the secularised Europe did not bring a major religious revival in the country. There was no significant rise in the ratio of churchgoers during the 1990s. There was, however, a change in the age structure of the religious, with a rising ratio of young adults. The surveys used here indicate that people between the age of 17 and 30 have become increasingly religious. By 1998 13.6% of this group participated in religious activities, in contrast to 11.6% in 1992. At the same time, however, religious involvement declined among the older age groups, especially those between 50 and 62 years. Tomka and Harcsa (1994), studying long term trends of religious activities in 1992-93, find no signs of major restructuring except at the time of the genocide of World War II. Analysing the social pattern of churchgoers they show that their ratio is particularly high among low skilled agricultural workers. Interestingly, among the 'intelligentsia', both the ratios of churchgoers and that of conscious atheists are outstanding. Similarly, others have also found positive relationship between education and church attendance in Hungary, using multivariate regression (Need and Evans 2001). This appears to be a distinct feature of religiosity in Hungary, since this relationship was shown to be negative in most other Eastern European countries (p. 240, Table V).

7) *Religiosity is expected to contribute positively to life satisfaction. We might also expect a rise in the contentment of the churchgoers, due to the increasing social role of the churches.*

Is there a relationship in general between ageing and people's self-rated happiness? Evidence on the life-cycle pattern of happiness is not consistent. There seems to be substantial support for a positive relation (Cantril 1965; Argyle 1987; 1999), but some

claim that there is no relationship at all (Easterlin 2001), and yet others report a U-shaped relation (Oswald 1997). This inconsistency may largely due to methodological differences. Most of the early studies looked at only bivariate relationships, not controlling for the effect of other factors that may change over the life-time. Recent studies of economists use controls for a number of personal characteristics, including unemployment, income, education, marital status, thus seem to capture a real age effect. They claim that happiness is U-shaped in age (Oswald 1997; Di Tella et al. 1999; Blanchflower and Oswald 2000). Their results seem to be consistently valid over various countries, including the US, Britain, and about a dozen other European countries. The limitation of these studies is that they mostly use cross-sectional datasets. Longitudinal data would be necessary to appropriately test the life cycle pattern of SWB¹²⁶.

Following the analysis of life satisfaction at two particular points in time, 1992 and 1998, the second part of the analysis will address how these relationships have changed over time. Who are the winners and losers of the transition? Are they in any way different from what is expected from the Western literature? Especially, have the changes in the labour market influenced overall satisfaction? Have the population got used to the phenomena of unemployment, thus is it a state associated with less dissatisfaction over time? Has the gap between the rich and the poor increased in terms of their life satisfaction as well? In general, have those who seemed to have an advantageous position at early transition managed to keep or increase their advantage? The use of self-reported general satisfaction will provide a useful means for assessing people's well-being or utility and in that way answer these questions.

Methodology

In the first part of the analysis ordinary-least-square (OLS) regressions will be used to analyse the patterns of life satisfaction across population groups in 1992 and 1998. In order to test the sensitivity of the results, I have also estimated ordered logit models with

¹²⁶ Easterlin has used a so-called 'synthetic cohort' approach, linking consecutive years over the period of 24 years, using the US General Social Survey. This is not an appropriate longitudinal study either. More importantly, however, he uses only education as a control, and does not control for other presumably very important correlates of happiness, such as income, marital status, labour market status, etc. (Easterlin 2001).

the same specification¹²⁷. The regression models incorporated sampling weights for the correction of sampling design (1992) and of sample fit (1998). The second part of the analysis will use a pooled dataset, consisting of a pooled sample of the two surveys. Thus the pooled dataset consists of 9251 observations¹²⁸.

The models used in the first and second part, respectively, are the following:

Model I:

$$\begin{aligned} \text{LIFE SATISFACTION}_{i0} &= f(\text{INCOME}_{i0}, \text{LABOURMARKETST}_{i0}, \text{HOUSING}_{i0}, X_{i0}) \\ \text{LIFE SATISFACTION}_{j1} &= f(\text{INCOME}_{j1}, \text{LABOURMARKETST}_{j1}, \text{HOUSING}_{j1}, \text{SOCIAL} \\ &\text{RELATIONS}_{j1}, \text{PERSONALITY}_{j1}, X_{j1}) \end{aligned}$$

where LIFE SATISFACTION_{i0} is *satisfaction with life up till now* for individual *i* in 1992, while LIFE SATISFACTION_{j1} is the same measure of life satisfaction for individual *j* in 1998. INCOME_{i0} and INCOME_{j1} indicate income quintile groups based on equivalised household income, LABOURMARKETST_{i0} and LABOURMARKETST_{j1} stand for the labour market status of individual *i* in 1992 and *j* in 1998, respectively, HOUSING_{i0} and HOUSING_{j1} refer to a series of indicators related to housing, including ownership status and housing conditions, and X_{i0} and X_{j1} stand for other personal characteristics. The model for 1998 includes additional variables: SOCIAL RELATIONS_{j1} indicates limited social contacts or the lack of friends for individual *j*, and PERSONALITY_{j1} refers to fatalism.

Model II:

$$\begin{aligned} \text{LIFE SATISFACTION}_{\text{POOLED } k} &= h(\text{INCOME}_k, \text{LABOURMARKETST}_k, \text{HOUSING}_k, X_k, \\ &\text{INCOME}_k * \text{YEAR}, \text{LABOURMARKETST}_k * \text{YEAR}, \text{HOUSING}_k * \text{YEAR}, X_k * \text{YEAR}) \end{aligned}$$

where LIFE SATISFACTION_{POOLED k} stands for satisfaction with life so far in the pooled dataset over 1992 and 1998 for individual *k*, and YEAR is a dummy, which takes a value of one in 1998.

The analysis thus primarily focuses on the relative importance of specific measures of objective well-being, thus includes these measures as explanatory variables. Beyond these,

¹²⁷ I have already presented a justification of the use of OLS method instead of ordered logit or probit in chapter 6. As mentioned, OLS is also used by some economists for estimating life satisfaction (e.g. Di Tella et al. 2001).

personal characteristics, such as sex, ethnicity, region, age, educational level, marital status, number of children, and religion were also included as explanatory variables. The choice of this latter set of variables partly reflects their importance as personal attributes, such as gender and ethnicity, and partly findings of the existing literature. The literature provided particularly strong support for the inclusion of unemployment, income, marital status and also that of religion. Overall, the specification is largely similar to those frequently used in the economics literature of happiness (e.g. Blanchflower and Oswald 2000; Di Tella et al. 2001). The main diversion is the inclusion of housing conditions, social relations and the measure of fatalism.

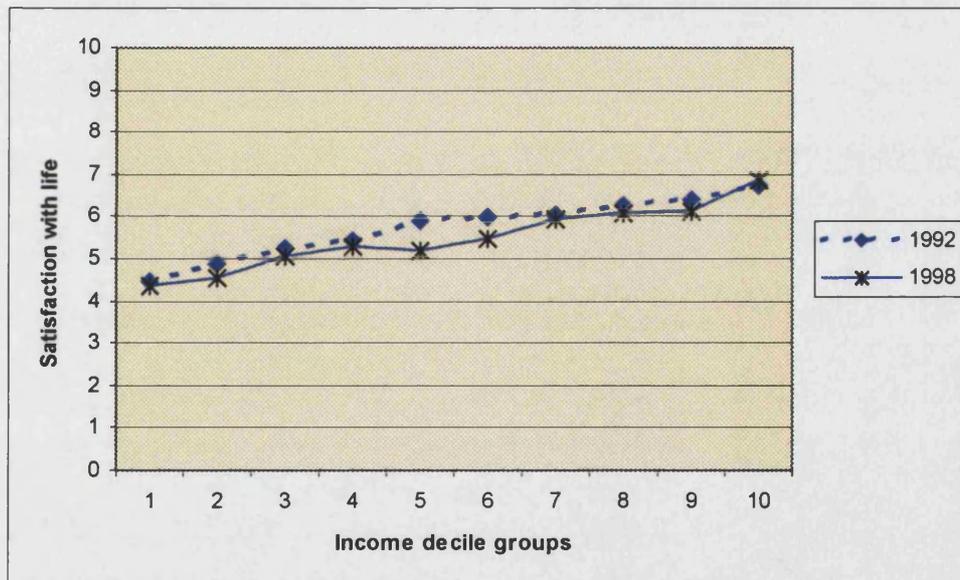
Religiosity is defined as going to church at least once a week. This definition is intentionally a narrow one in order to capture commitment, thus potential attitude effects. The definitions of other variables are consistent with those used earlier in the thesis, and can be read in detail in Appendix B.

¹²⁸ Since the sample sizes in 1992 and 1998 were not equal, a special weight variable has been created in order to generate equal sub-samples. In this way, the probability of an observation to be included in the pooled sample is the same irrespective of whether it originally belongs to the 1992 or the 1998 sub-sample.

7.2 FALLING SATISFACTION – BUT NOT FOR ALL

Life satisfaction declined over economic transition. As shown previously, at the later point of transition people's average satisfaction with their lives so far was somewhat smaller than at the early phase (see Figure 5.2). This implies that the increase of freedom, including greater opportunities to voice political preferences, which were shown to contribute to happiness elsewhere (Frey and Stutzer 2000), had less impact than the negative economic consequences of transition. There is considerable variation by income, labour market status and also by other personal characteristics.

Figure 7.1 *Life satisfaction and income*



Overall satisfaction varies by income, the higher income groups tend to be more contented on average. *The middle income groups became markedly more dissatisfied over time.* There is no significant change in the reported well-being of either the bottom or the top decile group. Interestingly, previous analysis has found a very similar pattern of *satisfaction with income* across various income decile groups (see Figure 6.1).

Table 7.1 Satisfaction with life up till now by labour market status

	1992	1998
Employee	5.97	5.83
Self-employed	5.85	6.36
Unemployed	4.26	4.09
Disability pensioner	4.79	4.57
Pensioner	5.69	5.28
Student	7.27	6.85
Other inactive	4.99	5.14
Total	5.73	5.5

There is a systematic difference between the life satisfaction of various labour market groups. The unemployed are the least satisfied. Students are the other extreme, being the most contented. Disability pensioners report much lower levels of satisfaction than old age pensioners, but higher than the unemployed. This specific group of pensioners thus seems to show distinct characteristics from that of old age pensioners. The difference between employees and self-employed is not significant in 1992, but it has become so by 1998. The self-employed became a distinct group within the employed over the transition, with markedly higher contentment.

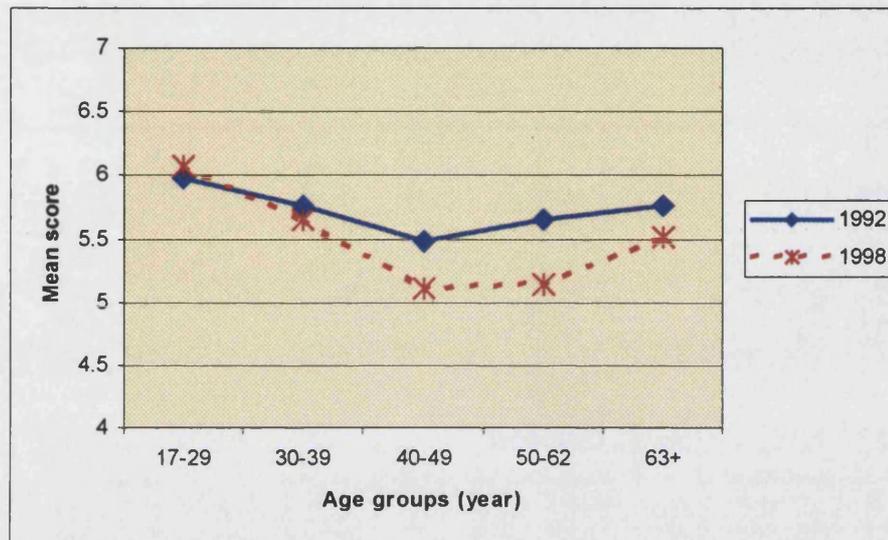
Table 7.2 Satisfaction with life by gender, ethnicity and other personal characteristics

	1992	1998
Male	5.69	5.56
Female	5.76	5.46
Gypsy ethnicity	4.18	4.05
Non-Gypsy	5.81	5.59
Up to elementary education	5.27	4.91
Vocational training	5.62	5.47
High school	6.23	6.19
Higher education	6.87	6.69
Budapest	6.03	5.64
Non-Budapest	5.66	5.47
Religious	6.01	5.82
Non-religious	5.68	5.44

Life satisfaction is greater for people with higher levels of education (Table 7.2). The Gypsy ethnic group is significantly less satisfied than the non-gypsy. There is no significant difference between the life satisfaction of men and women. People who live in the capital were more satisfied than others in 1992, while this difference was not significant in 1998. Those who are religious report significantly higher levels of well-being at both points in time. With regard to changes over time, the decline of satisfaction was prevalent among

both the religious and the non-religious population. Age has a U-shaped relationship with life satisfaction, the young being the most contented (Figure 7.2). Satisfaction is the lowest in late middle age, between 40 and 49 years. In the period examined here there was a large decline in the satisfaction of the 50 to 62 year old age group, including those who are still of working age but probably had to face declining opportunities in the labour market.

Figure 7.2. Life satisfaction in various age groups



7.3 LIFE SATISFACTION EQUATIONS

The following sections will discuss the relationship between life satisfaction and specific measures of objective well-being, controlling for a set of personal characteristics. I will conclude with discussing the relative importance of these specific measures. Following this, I will discuss variation of satisfaction by personal characteristics.

Life satisfaction and objective well-being

Income situation is consistently correlated with life satisfaction, in both years and in all the models, as Tables 7.3 and 7.4 below indicate. The bottom quintile group is less satisfied than the third quintile group, the coefficient is negative and significant at 1% level. The top quintile group is more satisfied than the reference category, controlling for education, age and other personal characteristics. This income effect remains prevalent even if labour market status and housing conditions are included in the model (model IV). The relative

situation of the second and fourth quintile groups is at times not significantly different from that of the third quintile group. Nevertheless, the overall pattern, that higher incomes tends to bring more satisfaction is clearly prevalent in both years.

Interestingly, there is some evidence that the lack of money contributes to misery more than plenty of money adds to contentment. In 1992 the relative dissatisfaction of the bottom quintile group was significantly greater than the relative satisfaction of the top quintile group compared to the middle quintile group, controlling for a series of personal characteristics (model I). This difference remained prevalent (at 5% significance level) even when a series of other measures of objective well-being were added to the model, including labour market status, housing conditions (model IV). There was no similar pattern in 1998.

Table 7.3 General life satisfaction and objective well-being in 1992 - OLS regression

	I		II		III		IV	
	Coef.	Std. Err						
<i>Income:</i>								
1 st quintile group	-0.961	0.140	-0.836	0.138	-0.878	0.139	-0.771	0.137
2 nd quintile group	-0.529	0.126	-0.468	0.124	-0.475	0.126	-0.421	0.124
4 th quintile group	0.201	0.123	0.157	0.122	0.103	0.123	0.077	0.122
5 th quintile group	0.542	0.123	0.456	0.123	0.470	0.123	0.407	0.122
<i>Labour market status:</i>								
Unemployed			-0.982	0.216			-0.923	0.216
Disability pensioner			-0.810	0.204			-0.807	0.202
Pensioner			-0.239	0.160			-0.214	0.159
Self-employed			-0.186	0.201			-0.277	0.201
Student			1.887	0.189			1.819	0.189
Other inactive			-0.501	0.174			-0.484	0.174
<i>Housing:</i>								
Ownership: tenant					-0.316	0.120	-0.346	0.118
other					-0.128	0.206	-0.108	0.203
Housing value (ln)					0.159	0.054	0.109**	0.053
Housing value dummy for missing cases					2.147	0.764	1.510**	0.759
Living space per person (ln)					0.140	0.103	0.163	0.101
<i>Housing problems:</i>								
moderate					-0.327	0.099	-0.342	0.097
rather serious					-0.580	0.183	-0.528	0.180
serious					-1.102	0.300	-1.048	0.299
<i>Other personal char.:</i>								
Female	0.237	0.082	0.242	0.082	0.240	0.082	0.243	0.082
Ethnicity (Gypsy)	-0.821	0.241	-0.504**	0.241	-0.368	0.245	-0.112	0.245
Vocational training	0.173	0.114	0.309	0.115	0.123	0.114	0.266**	0.116
Secondary ed.	0.556	0.110	0.579	0.108	0.489	0.110	0.528	0.109
Higher ed.	0.969	0.136	1.020	0.139	0.894	0.138	0.960	0.141
17-29 yrs	0.706	0.149	0.464	0.150	0.761	0.150	0.521	0.150
30-39 yrs	0.169	0.139	0.122	0.138	0.157	0.138	0.106	0.137
50-62 yrs	0.360	0.137	0.454	0.145	0.330**	0.137	0.413	0.145
63 and more	0.937	0.152	1.010	0.189	0.914	0.153	0.960	0.189
Budapest	-0.028	0.081	-0.065	0.080	0.140	0.093	0.124	0.091
Married	0.465	0.147	0.790	0.150	0.455	0.148	0.772	0.152
Divorced	-0.883	0.210	-0.593	0.211	-0.795	0.209	-0.531**	0.210
Widow/er	-0.497**	0.206	-0.221	0.210	-0.477**	0.208	-0.230	0.212
1 child	0.126	0.114	0.055	0.111	0.141	0.117	0.083	0.114
2 children	0.311**	0.142	0.266*	0.139	0.362	0.145	0.334**	0.143
3 children or more	0.417**	0.210	0.438	0.206	0.516**	0.217	0.552**	0.213
Religious	0.415	0.103	0.397	0.102	0.360	0.102	0.343	0.101
Constant	4.692	0.202	4.534	0.211	2.192	0.769	2.651	0.767
Observations	5003		5003		5003		5003	
F ratio	27.66		27.99		22.63		23.56	
Adj. R ²	0.1071		0.1327		0.1207		0.1443	

Notes: * denotes significance at 10% level, ** denotes significance at 5 % level, **bold** denotes significance at 1% level. The models have been corrected for *heteroscedasticity using the Huber/White estimator of variance.*

Base categories: 3rd quintile group, employee, owner-occupier, no housing problems, elementary education or below, 40-49 years, single, no children

Table 7.4 General life satisfaction and objective well-being in 1998 - OLS regression

	I		II		III	
	Coef.	Std. Err	Coef.	Std. Err	Coef.	Std. Err
<i>Income:</i>						
1 st quintile group	-0.652	0.152	-0.562	0.152	-0.547	0.150
2 nd quintile group	-0.129	0.142	-0.085	0.139	-0.107	0.140
4 th quintile group	0.458	0.132	0.426	0.129	0.408	0.131
5 th quintile group	0.821	0.135	0.741	0.134	0.715	0.134
<i>Labour market status:</i>						
Unemployed			-1.122	0.268		
Disability pensioner			-0.645	0.173		
Pensioner			-0.422**	0.166		
Self-employed			0.376*	0.202		
Student			1.472	0.200		
Other inactive			-0.282	0.177		
<i>Housing:</i>						
Ownership: tenant					-0.091	0.200
other					-0.066	0.281
Housing value (ln)					0.132**	0.065
Housing value dummy for missing cases					1.766*	0.951
Living space per person (ln)					0.190*	0.107
<i>Housing problems:</i>						
moderate					-0.286**	0.137
rather serious					-1.123	0.244
serious					-1.210	0.310
<i>Other personal characteristics:</i>						
Female	0.045	0.093	0.063	0.092	0.047	0.092
Ethnicity (Gypsy)	-0.761	0.291	-0.538*	0.283	-0.564**	0.284
Vocational training	0.256**	0.123	0.370	0.122	0.194	0.122
Secondary education	0.822	0.121	0.822	0.119	0.718	0.121
Higher education	1.205	0.160	1.193	0.163	1.045	0.162
17-29 yrs	1.049	0.177	0.809	0.179	1.048	0.176
30-39 yrs	0.472	0.154	0.479	0.152	0.463	0.153
50-62 yrs	0.083	0.137	0.243	0.151	0.057	0.136
63 and more	0.646	0.156	0.909	0.200	0.673	0.157
Budapest	-0.182	0.120	-0.193	0.118	-0.112	0.125
Married	0.384**	0.166	0.705	0.168	0.339**	0.165
Divorced	-0.922	0.214	-0.598	0.214	-0.895	0.211
Widow/er	-0.050	0.225	0.283	0.228	-0.136	0.224
1 child	0.077	0.127	0.013	0.124	0.123	0.132
2 children	0.138	0.166	0.099	0.164	0.214	0.168
3 children or more	0.251	0.259	0.222	0.251	0.567**	0.258
Religious	0.360	0.109	0.305	0.109	0.314	0.110
Constant	4.345	0.208	4.171	0.211	2.016	0.953
Observations	3160		3160		3160	
F ratio	25.18		24.36		21.52	
Adj. R ²	0.1319		0.1597		0.1507	

Notes: * denotes significance at 10% level, ** denotes significance at 5 % level, **bold** denotes significance at 1% level. The models have been corrected for *heteroscedasticity using the Huber/White estimator of variance*.

Base categories: 3rd quintile group, employee, owner-occupier, no housing problems, elementary education or below, 40-49 years, single, no children

Table 7.5 General life satisfaction, objective well-being and personality in 1998 - OLS regression

	IV		V		VI	
	Coef.	Std. Err	Coef.	Std. Err	Coef.	Std. Err
<i>Income:</i>						
1 st quintile group	-0.621	0.151	-0.437	0.143	-0.334**	0.144
2 nd quintile group	-0.080	0.141	-0.001	0.132	0.036	0.130
4 th quintile group	0.444	0.131	0.349	0.127	0.305**	0.125
5 th quintile group	0.764	0.135	0.550	0.128	0.461	0.128
<i>Labour market status:</i>						
Unemployed					-0.782	0.249
Disability pensioner					-0.457	0.164
Pensioner					-0.320**	0.155
Self-employed					0.164	0.184
Student					1.138	0.194
Other inactive					-0.242	0.163
<i>Housing:</i>						
Ownership: tenant					0.006	0.181
other					0.069	0.277
Housing value (ln)					0.019	0.059
Housing value dummy for missing cases					0.188	0.863
Living space per person (ln)					0.206**	0.102
<i>Housing problems:</i>						
moderate					-0.119	0.127
rather serious					-0.928	0.220
serious					-0.826	0.275
<i>Social relations:</i>						
Little contact with relatives or friends	-0.457	0.090	-0.282	0.086	-0.279	0.085
No friends	-0.150	0.100	-0.018	0.094	0.013	0.093
<i>Personality:</i>						
Fatalism			-0.251	0.013	-0.230	0.013
<i>Other personal characteristics:</i>						
Female	0.030	0.093	0.190**	0.087	0.196**	0.086
Ethnicity (Gypsy)	-0.739**	0.289	-0.509**	0.271	-0.251	0.260
Vocational training	0.229**	0.122	0.105	0.115	0.173	0.116
Secondary education	0.765	0.121	0.395	0.114	0.367	0.113
Higher education	1.111	0.160	0.494	0.152	0.448	0.156
17-29 yrs	0.987	0.178	0.609	0.169	0.479	0.170
30-39 yrs	0.393**	0.154	0.278*	0.145	0.279*	0.144
50-62 yrs	0.110	0.136	0.165	0.128	0.242*	0.142
63 and more	0.673	0.156	0.835	0.147	1.005	0.187
Budapest	-0.218*	0.120	-0.160	0.113	-0.110	0.117
Married	0.374**	0.165	0.152	0.153	0.406	0.156
Divorced	-0.967	0.211	-0.865	0.197	-0.623	0.196
Widow/er	-0.093	0.223	0.153	0.211	0.310	0.216
1 child	0.135	0.127	0.089	0.120	0.095	0.122
2 children	0.136	0.166	0.181	0.154	0.239	0.159
3 children or more	0.349	0.262	0.101	0.243	0.366	0.239
Religious	0.342	0.109	0.243**	0.103	0.176*	0.104
Constant	4.732	0.219	8.246	0.274	6.969	0.885
Observations	3160		3160		3160	
F ratio	24.59		41.76		31.92	
Adj. R ²	0.1398		0.2399		0.2637	

Notes: * denotes significance at 10% level, ** denotes significance at 5 % level, **bold** denotes significance at 1% level. The models have been corrected for *heteroscedasticity using the Huber/White estimator of variance*.

Base categories: 3rd quintile group, employee, owner-occupier, no housing problems, elementary education or below, 40-49 years, single, no children

Certain *labour market* groups, the unemployed, disability pensioners and students have markedly different levels of overall satisfaction from that of employees, both in the early

and in the late 1990s (see Model II in both Table 7.3 and 7.4). The unemployed tend to be significantly less satisfied than employees, the variables are highly significant and negative in both years examined here. This means that unemployment is a state of distress, the cost of joblessness greatly surpasses that of income loss. The cost of unemployment may be a psychological cost, but may be a cost associated with lost future earnings. It is not clear which causes lower SWB for the unemployed. Disability pensioners are also dissatisfied. Students seem to be a rather distinct group within the inactive, with outstanding level of relative satisfaction, over and above the large and positive effect of young age.

There is some evidence that disability pensioners are a distinct group within all pensioners, probably with characteristics similar to the unemployed. At the early point in transition, disability pensioners were significantly less satisfied than old age pensioners, controlling for income and other personal characteristics. At the same time, there was no significant difference between the coefficients of the unemployed and the disability pensioners. The inactive, other than pensioners or students, were also more dissatisfied than employees in 1992. This may be attributable to high proportion of discouraged people among the inactive, who no longer search for jobs. European evidence for the relative well-being of those 'keeping home' is inconsistent, although for example in the US and in Britain their status is associated with relative dissatisfaction (Di Tella et al. 1999; Blanchflower and Oswald 2000).

The self-employed show certain signs of optimism in 1998. Controlling for the effect of income, the self-employed reported significantly higher level of satisfaction than employees (Model II in Table 7.4). This effect is not significant once personality is also included in the model (Model VI in Table 7.5). This suggests that entrepreneurs are most likely to be those who lack fatalism. Why are entrepreneurs possibly more satisfied than employees? One explanation may be their higher job satisfaction in 1998 and the relatively higher role of job satisfaction in the assessment of their overall satisfaction (see Figures 5.4-5.5 and Table 5.5 previously).

Housing conditions are clearly elements of overall life satisfaction. Problematic housing conditions, especially severe housing problems, are negatively associated with life satisfaction, accounting for educational differences, gender, ethnicity and other characteristics of the respondents. This effect remains the same even after controlling for

differences in income and labour market status. The coefficient of housing value, as expected, is positive in most models. Counterintuitive is the relationship between housing ownership and life satisfaction. Tenants are significantly less satisfied than owner-occupiers, *ceteris paribus*. This effect, however, is observable only in 1992 and not in 1998. Previously, tenants were found to be dissatisfied with their housing situation only in 1998. People's self-assessed housing situation thus differs from overall self-reported life satisfaction. A possible explanation might be the uncertainty of many tenants in the early 1990s, not knowing whether their properties will be offered for sale and what the conditions are going to be. The lack of any effect in 1998 suggests that ownership status is not related to overall life satisfaction over and above the effect of housing conditions and property value. This might be a prevailing general relationship in times with no major changes. This proposition, however, is only a possible issue for future research, not testable here.

Social relations are also correlated with life satisfaction. Those who have little or no contact with relatives or friends are less satisfied with their lives, controlling for income, age, family status, number of children and other personal characteristics. The coefficient is significant at 1% level, and has a negative sign. The variable showing the lack of intimate friends is not significant. This shows that it is actually the actual practice of social contacts, which matters, rather than the sheer existence of friendship.

Personality, measured as fatalism here, is one of the most important explanatory variables in the life satisfaction equations. The goodness of fit greatly increases when fatalism is included in the model: the adjusted R^2 rises from 14% to 24%. Those people, who reported high degree of fatalism, in other words who feel that they have limited control over their lives, tend to be much less satisfied with their lives than those who do not have such problem.

All of the measures of objective well-being used here seem to be important factors of life satisfaction. The inclusion of labour market status, housing situation, and social relations all improve the fit of the models in both years, and there is always at least one significant variable in these specific domains. As the aggregate models indicate (see model IV in Table 7.3 and model VI in Table 7.5), all of these specific domains add to our understanding of life satisfaction. There are significant variables in each domain, controlling for other

domains and personal characteristics. It is noteworthy that this also shows that *measures of objective well-being represent valuable information over and above that of income level*. The relative impact of the non-income measures often greatly surpasses that of income. This indicates the *importance of all of these measures of well-being in their own right, and also that all of these represent qualitatively different aspects of people's lives*.

These specific measures of objective well-being, however, are related to overall satisfaction to a varying extent. As expected, labour market status is a more important aspect of life satisfaction than housing conditions. This is shown by the higher adjusted R^2 of the model which includes labour market variables compared to that including housing characteristics. Results referring to 1998 suggest that the role of social relations is less than labour market or housing situation. This, however, might well be attributable to the inadequacy of the measure of social relations used here. Personality seems to be one of the core variables in explaining differences of subjective well-being across people. Similar to satisfaction with family relations, life satisfaction is strongly related to fatalism. The inclusion of the variable of fatalism improves the fit of the model more than any set of measures of objective well-being.

What is the trade-off between the specific measures? In an OLS model the ratio of any two variables shows how much one variable should change in order to maintain the same level of life satisfaction when the other variable is altered. To compensate people for unemployment the government would have to provide an annual transfer of nearly 1 million forints (in 1998 prices), which is somewhat higher than average annual earnings (see Table A7.2 in Annex A)¹²⁹. This confirms existing evidence on that the cost of job loss greatly surpasses that of sheer income reduction. A transfer of a similar amount is expected to raise the well-being of people who live in severely problematic housing conditions to the same level as those who have no such problems at all. The compensation for inactivity is on average 300,000 forints. A marriage is 'worth' half a million per year in this calculation, so this much would have to be paid to those who are single so that they could enjoy equal level of happiness as those who live in marriage, other things being equal.

¹²⁹ For the sake of the simplicity of the interpretation, a specific OLS model had to be estimated, with a continuous and linear income variable.

In sum, the findings indicate a significant and consistent relationship between measures of objective well-being and life satisfaction. The results are not sensitive to the estimation technique used here, OLS regression, as indicated by the outputs of the ordered logit estimates for both years (see Table A7.1 in the annex). The direction of the relationship is similar to what was expected from existing literature for other countries and from earlier analysis in this thesis. All this seems to powerfully demonstrate the explanatory power, and also to some extent the reliability of the measure of life satisfaction used here.

Social divisions in terms of happiness

There is some evidence for the relative satisfaction of women and limited signs of possible relative dissatisfaction of those with Gypsy ethnicity. Women were more satisfied than men in 1992, *ceteris paribus*. In 1998, the coefficient for female is significant in those two models which control for fatalism, including the aggregate model with all measures of objective well-being. The ordered logit estimates show a significant and positive relationship between gender and satisfaction. The evidence for a possible ethnicity effect is very weak. Ethnicity in the ordered logit estimates is insignificant. The variable for Gypsy ethnicity is significant and has a negative sign consistently in both years only in those OLS models, which include income and labour market status (models I and II). Controlling for all the measures of objective well-being and also for personality in 1998, Gypsy ethnicity is not significant, however.

Educational attainment seems to be a major factor of life satisfaction, the higher educated being the most satisfied. The regression results indicate a consistent 'returns to skills' in terms of life satisfaction, controlling for income and other personal characteristics. Education may in itself make people contented, e.g. through the appreciation of culture, knowledge or the resulting empowerment of individuals over their lives. It may also just contribute to people's happiness because with higher levels of education their future income is expected to be higher. Thus, the net education effect in multivariate analysis may simply result from the difference between current income and 'permanent income', which includes discounted future incomes. Education, thus, may be just a proxy for permanent income, but only if the labour market 'rewards' higher educational attainment. The lack of this latter condition might be the cause why a study on happiness in Kyrgyzstan during early transition did not find evidence for increasing satisfaction by education (Namazie and Sanfey 2001), in contrast to other countries (Argyle 1999) and also to Hungary.

Age seems to have a U-shaped pattern, the youngest and the oldest age groups are the happiest, controlling for other personal characteristics. People below 30 years and those who are 63 or more are consistently more satisfied than the reference category of the 40 to 49-year old age group, in both years and in both the OLS and ordered logit estimates. The coefficients are significant at the 1% level. The magnitude of the effect is rather large: age is correlated to life satisfaction at least as strongly as income. This may suggest that age brings specific attitudes, thus may be also interpreted as an element of 'personality'. This U-shaped pattern is similar to recent, and not widely known findings in the literature about Western European countries (e.g. Di Tella et al. 1999; Blanchflower and Oswald 2000). What is a possible explanation for the variation of happiness across age groups?

Age appears to be a particularly interesting demographic variable during transition. The New Democracies Barometer Surveys show that the younger were on average the most supportive of the new market system (Rose and Haerpfer 1996; 1998). Their favourable judgement on the change of the economic and political environment is expected to contribute positively to their general sense of well-being. A Hungarian study finds that the occurrence of depressive syndrome is by far the smallest among the younger age groups, among those below 30, and has decreased between 1988 and 1995 (Kopp, Skrabski, Loke and Szedmak 1999). In the meantime, the frequency of depression among those over fifty had substantially increased, reaching over 60% among women over sixty years in 1995¹³⁰. The relative satisfaction of the pensioner age group thus seems rather counterintuitive. Earlier analysis in chapter 6 has shown that the elderly tend to be relatively more satisfied with family life than the middle age group, controlling for a series of personal characteristics. Although pensioners as an occupational group were relatively more dissatisfied with their incomes than employees, the pensioner age group was very satisfied. These two effects together still indicated a mild positive relative satisfaction of elderly pensioners in contrast to the reference group of middle aged employees. These two previous findings seem to support the finding here. The elderly may be more satisfied with

¹³⁰ The study makes distinction between mild, moderate and severe form of depression, of which mild depression is the most frequent. Among women over 60, however, more than half of depressive syndrome cases are moderate or severe. During the early period of transition, between 1988 and 1995, severe depression has considerably grown among both men and women over 50, reaching the highest figure, about 20% among women over 60 (p. 124, Kopp et al. 1999).

their lives in general than people in their forties, because their incomes make them contented and more importantly, they regard their family life to be happy.

Married people tend to be more satisfied than the single, and those who are divorced are relatively dissatisfied, other things being equal. The widows and widowers are not a clearly distinct group in terms of life satisfaction, the coefficient is in most cases insignificant. There is limited evidence for their relative dissatisfaction in 1992. The number of children in the household, when significant, is associated with higher levels of satisfaction.

Religious involvement is positively correlated with life satisfaction. The effect is prevalent at both the beginning and the end of the transition process. The size of the coefficient remains about the same over time. The effect is modest: religiosity increases the probability of being fully satisfied by 2.6% (1.5%) in 1992 (1998), as estimates of marginal probability suggest. Similar positive correlations between religion, particularly churchgoing, and SWB have been found in a series of Western European countries and the United States [see the review of Argyle (1999)]. There is no such pattern if 'faith' is used as an explanatory variable in this model instead of religiosity defined as regular churchgoing. The possible reason is that it is the institutional aspect of religious involvement that enhances the development of specific norms, different from those prevailing in the society at large. We may also assume that people derive satisfaction from the activity of participation itself.

We may speak of *causal effects* in case of those variables, which are mostly beyond an individual's choice. Thus, personal characteristics, such as age, sex, and ethnicity *cause* varying levels of satisfaction. Being young is a major source of satisfaction in general. We can say without hesitation that it is youth, which causes happiness, since (for some, unfortunately) choosing our age depending on our attitudes is not possible. Gypsy ethnicity may be accountable (with the reservations mentioned before) for a negative effect on satisfaction. The causal effect of education is less clear-cut. We can assume that education contributes to self-esteem, social respect and financial prosperity, thus it causes contentment. We can also assume, however, that an individual's distress, extreme dissatisfaction has a negative impact on educational attainments. Since educational achievements are related to long-term performance, only long-standing patterns of satisfaction itself would explain educational levels. Most likely, however, is that the direction of causality is primarily leads from education to overall satisfaction. Similarly,

marriage may be a cause of happiness, but it may as well be more likely that individuals with cheerful disposition are more likely to get married.

7.4 WINNERS AND LOSERS OF TRANSITION

This section specifically assesses changes in the micro structure of SWB over time. Which objective conditions or personal characteristics have become increasingly important over time in explaining satisfaction? Which ones have significantly declined? How stable are the social patterns of SWB in Hungary? Has there been a significant restructuring as a result of the transition process? These and similar questions can be addressed with the use of a pooled dataset, which contains a united sample consisting of both the observations of 1992 and 1998.

Increasing economic freedom, as expected, benefited those who could use this freedom the most: the entrepreneurs (see Table 7.6). Entrepreneurship has become more positively associated with life satisfaction over time, even after controlling for income, education, age and a series of other personal characteristics. This is indicated by the positive and significant coefficient of the interaction term, which indicates the change in the strength of the relationship by 1998, compared to 1992. The coefficient is significant at the 5% level, and is relatively high. The degree of increase in satisfaction over time for the self-employed is about as high as much the rich (top income quintile group) is happier than the middle income group (third income quintile group). Entrepreneurs are the only labour market group, which seems to have improved its situation in the observed period, thus they may be called the winners of the transition process.

Entrepreneurship is not a product of the economic change, but already existed during Socialism. As described earlier, entrepreneurs have probably experienced increasing economic freedom as various legal barriers have been lifted. One possible explanation for the increasing satisfaction is that they may have experienced a more stable economic and regulatory environment in 1998 compared to 1992, or they may have perceived this environment to be like that. Either way, this would contribute to a sense of security. The optimism of the self-employed might be explained by a selection process; many of those who were entrepreneurs in 1998 had actually been successful beforehand.

Why does entrepreneurship have a positive effect beyond that of higher earnings? Entrepreneurship brings higher job satisfaction, and a large number of people would prefer to be self-employed, both in Eastern and Western Europe (Blanchflower et al. 2001). Earlier results in chapter 5 suggested that job satisfaction is a particularly strong correlate of overall life satisfaction for the self-employed (see Tables 5.5 and 5.6). Job satisfaction of the self-employed had increased, and had become greater than that of employees by 1998 (see Figures 5.4 and 5.5). Earlier results, showing the significant impact of fatalism on people's overall satisfaction suggest that the lack of control over one's life is a source of unhappiness. Contrary to this, we may expect that entrepreneurs' control over their working life would lead to greater happiness. This implies that money is not the sole and ultimate motivation of an entrepreneur. The growing satisfaction of entrepreneurs even after controlling for income, the empirical results presented earlier, appears to support this.

It seems that transition has affected the microeconomic structure of life satisfaction only to a minor extent. There is some change in the coefficients of the second and fourth income quintile groups compared to the third one. This is most likely attributable to the declining satisfaction of the middle income group, as Figure 7.1 suggests. The unchanged relationship between satisfaction and income at the top and at the bottom implies that there was no substantial change in the role of income group. A further sign of change during the period examined here refers to housing. Housing problems seem to contribute increasingly to relative dissatisfaction, other things being equal.

Table 7.6 The effect of transition on life satisfaction - OLS regression, pooled data

	I		II		III		IV	
	Coef.	Std. Err	Coef.	Std. Err	Coef.	Std. Err	Coef.	Std. Err
<i>Interaction effects</i>								
<i>Income:</i>								
1 st quintile group*year	0.309	0.202	0.264	0.202	0.321	0.200	0.277	0.199
2 nd quintile group*year	0.379**	0.186	0.349*	0.183	0.337*	0.185	0.311*	0.182
4 th quintile group*year	0.256	0.177	0.266	0.175	0.300*	0.177	0.298*	0.175
5 th quintile group*year	0.267	0.181	0.276	0.180	0.242	0.180	0.245	0.179
<i>Labour market status:</i>								
Unemployed*year			0.021	0.338			0.027	0.336
Disability pensioner*year			0.183	0.265			0.209	0.261
Pensioner*year			-0.227	0.229			-0.252	0.227
Self-employed*year			0.583**	0.282			0.589**	0.280
Student*year			-0.424	0.273			-0.420	0.274
Other inactive*year			0.163	0.245			0.148	0.243
<i>Housing:</i>								
Ownership: tenant*year					0.222	0.230	0.301	0.228
other*year					0.137	0.350	0.078	0.344
Housing value (ln)*year					-0.043	0.083	-0.021	0.082
Housing value dummy for missing cases*year					-0.621	1.203	-0.371	1.192
Living space per person (ln) * year					0.018	0.146	-0.005	0.145
<i>Housing problems:</i>								
moderate*year					0.039	0.165	0.071	0.163
rather serious*year					-0.585*	0.301	-0.600**	0.292
serious*year					-0.029	0.432	-0.011	0.436
Female*year	-0.162	0.123	-0.138	0.122	-0.169	0.121	-0.143	0.121
Ethnicity (Gypsy)*year	-0.042	0.368	-0.139	0.363	-0.309	0.367	-0.382	0.362
Vocational training*year	0.070	0.165	0.042	0.166	0.059	0.165	0.027	0.166
Secondary ed.*year	0.259	0.161	0.226	0.159	0.223	0.162	0.183	0.159
Higher ed.*year	0.293	0.208	0.221	0.211	0.224	0.210	0.154	0.214
Religiosity*year	-0.026	0.148	-0.059	0.147	-0.007	0.148	-0.037	0.147
<i>Main effects</i>								
<i>Income:</i>								
1 st quintile group	-0.969	0.139	-0.844	0.138	-0.879	0.138	-0.773	0.137
2 nd quintile group	-0.521	0.126	-0.460	0.124	-0.465	0.126	-0.411	0.124
4 th quintile group	0.204*	0.123	0.163	0.122	0.105	0.123	0.083	0.122
5 th quintile group	0.550	0.123	0.468	0.123	0.478	0.123	0.419	0.122
<i>Labour market status:</i>								
Unemployed			-0.991	0.213			-0.937	0.213
Disability pensioner			-0.782	0.204			-0.779	0.202
Pensioner			-0.223	0.161			-0.197	0.159
Self-employed			-0.188	0.201			-0.285	0.201
Student			1.867	0.189			1.803	0.190
Other inactive			-0.437	0.172			-0.416	0.172
<i>Housing:</i>								
Ownership: tenant					-0.328	0.118	-0.360	0.117
other					-0.019	0.214	0.032	0.211
Housing value (ln)					0.166	0.054	0.116**	0.053
Housing value dummy for missing cases					2.261	0.762	1.623**	0.757
Living space per person (ln)					0.133	0.102	0.157	0.101
<i>Housing problems:</i>								
moderate					-0.331	0.098	-0.345	0.097
rather serious					-0.576	0.184	-0.523	0.180
serious					-1.068	0.297	-1.017	0.297
Female	0.235	0.082	0.236	0.082	0.237	0.082	0.236	0.082
Ethnicity (Gypsy)	-0.790	0.241	-0.483	0.241	-0.337	0.244	-0.086	0.245
Vocational training	0.175	0.114	0.312	0.115	0.122	0.114	0.267**	0.115
Secondary ed.	0.563	0.109	0.588	0.108	0.496	0.110	0.537	0.109
Higher ed.	0.971	0.136	1.024	0.139	0.896	0.138	0.963	0.141

Religiosity	0.408	0.102	0.392*	0.102	0.352	0.102	0.338	0.101
Year	-0.387	0.284	-0.390	0.293	0.115	1.206	-0.107	1.198
Other personal controls	Yes		Yes		Yes		Yes	
Constant	4.691	0.201	4.533	0.211	2.117**	0.769	2.572	0.767
Observations	8373		8373		8373		8373	
F ratio	27.73		27.85		23.59		23.26	
Adj. R ²	0.1218		0.1467		0.1371		0.1597	

Notes: * denotes significance at 10% level, ** denotes significance at 5 % level, **bold** denotes significance at 1% level. The models have been corrected for *heteroscedasticity using the Huber/White estimator of variance*.

Base categories: 3rd quintile group, employee, owner-occupier, no housing problems, elementary education or below, 40-49 years, single, no children

Other personal controls: includes age, marital status, number of children

The relative situation of women and the Gypsy did not change significantly over time, *ceteris paribus*. Somewhat contrary to our expectations, there is no evidence for increasing returns to education in terms of happiness. Higher educational attainment is a strongly and positively correlated with life satisfaction, as the main effect suggests, but there is no change over time, over and above the changes in income and labour market status.

Religiosity was not a source of increasing satisfaction over time. The interaction effect is not significant, which implies that the relationship between religious involvement and SWB did not change over time. Contrary to the starting hypothesis, the greater social role of religious institutions did not affect church members. This may suggest personal autonomy: people's utility does not depend on the social or political power of the institution they 'belong to'. This also seems to imply that the sense of personal religious freedom was rather developed, and was well established in the constitutional changes of 1989, which reinstated religious freedom in a legal sense. Religiosity thus was not making people increasingly satisfied over time, but was a stable positive correlate of life satisfaction, as the main effect and previous evidence shows.

Overall, it seems that the major social and economic transformation of the 1990s affected the structure of happiness in a very limited way. This suggests that the determinants of happiness may be rather stable. This suggests that similar things tend to make people happy, but this does not imply that people have preserved their specific attributed which make them happy or unhappy. In other words, there may have been a compositional change over time. I have to note here, that this analysis does not refer to the change in the situation of specific individuals, since I did not use panel data. The findings compare social groups with particular characteristics at two points in time. Possible compositional

changes, for example changes in the income position are most likely affected life satisfaction. The study of income mobility and labour market transitions would most likely contribute with valuable information on these issues.

7.5 CONCLUSION

The estimated micro-econometric well-being equations are increasing in income as assumed in Hypothesis 1 and show largely similar structures to those described in the existing literature on Western Europe and the United States (e.g. Di Tella et al. 1999; Alesina, Tella and MacCulloch 2001). Unemployment and disability pensioner status, a typical way of withdrawal from the labour market in Hungary, and divorce is negatively, and high income, higher levels of education, and marriage are positively correlated with life satisfaction (Hypotheses 2 and 4). There is a U-shaped pattern between age and self-reported well-being, other things being equal. Religious people have a consistently higher level of satisfaction, as assumed earlier (see Hypothesis 7). In addition, as expected in Hypothesis 3, people living in unsatisfactory housing conditions tend to be dissatisfied, controlling for differences in incomes and other personal characteristics.

Previously used indicators of objective well-being, including labour market status, housing conditions, and social relations are significant elements of overall satisfaction, controlling for income and personal characteristics. These results seem to confirm the starting proposition of the thesis on the importance of these measures as elements of people's functionings. The findings indicate a significant and consistent relationship between measures of objective well-being and life satisfaction. The results are not sensitive to the estimation technique used here, OLS regression, as indicated by the output of the ordered logit estimates. *The relative impact of the non-income measures often greatly surpasses that of income. This indicates the importance of all of these measures of well-being in their own right, and also that all of these represent qualitatively different aspects of people's lives.* At the starting point of the thesis I argued that these measures are valuable per se, because they represent something inherently 'good'. In addition, it seems that *objective well-being is not just 'good', but also desired by people.*

These specific measures of objective well-being, however, are related to overall satisfaction to a varying extent. As hypothesised, *labour market status is a more important aspect of life satisfaction than housing conditions* (see hypothesis 6). The role of social relations appears to be smaller than labour market or housing situation. This, however, may be attributable to the limited measures of social relations used here. *Personality* seems to be one of the core variables in explaining differences of subjective well-being across people. Personality seems to be one of the core variables in explaining differences of subjective well-being across people. Similar to satisfaction with family relations, studied in the previous chapter, life satisfaction is negatively related to fatalism, as expected in hypothesis 5. The inclusion of the variable of fatalism improves the fit of the model more than any set of measures of objective well-being.

What is the trade-off between the specific measures? In order to 'compensate' people for unemployment the government would need to provide an annual transfer of nearly 1 million forint (in 1998 prices), which is somewhat higher than the average annual earning. This confirms existing evidence that the cost of job loss greatly surpasses that of sheer income reduction. A transfer of a similar amount is expected to raise the well-being of people who live in severely problematic housing conditions to the same level as those who have no such problems at all. The compensation for inactivity would be on average 300,000 forints. A marriage is 'worth' half a million in this calculation, so this much could be paid for those who are single so that they could enjoy equal level of happiness as those who live in marriage.

It was shown that increasing 'ideological freedom' did not affect people, but growing 'economic freedom' did. Somewhat contrary to hypothesis 7, the religious population was not positively affected by increasing ideological freedom. The happiness of the religious, measured as regular churchgoing, was not influenced by the expansion of the church, 'institutionalised religiosity', in social life. People, in contrast, seem to care about the growth of economic freedom. The soundest evidence on the impact of transition relates to the group of entrepreneurs. Their self-assessed well-being has increased over time. The entrepreneurs may thus be identified as the major winners of the transition process.

ANNEX 7.

Table A7.1 Life satisfaction, objective well-being and personality - ordered logit model

	1992		1998	
	Coef.	Std. Err	Coef.	Std. Err
<i>Income:</i>				
1 st quintile group	-0.547	0.098	-0.255**	0.119
2 nd quintile group	-0.304	0.087	0.008	0.109
4 th quintile group	0.059	0.086	0.250**	0.103
5 th quintile group	0.281	0.087	0.364	0.106
<i>Labour market status:</i>				
Unemployed	-0.658	0.152	-0.655	0.206
Disability pensioner	-0.541	0.143	-0.344	0.129
Pensioner	-0.144	0.115	-0.212*	0.127
Self-employed	-0.207	0.141	0.138	0.159
Student	1.246	0.133	0.905	0.159
Other inactive	-0.316**	0.125	-0.172	0.141
<i>Housing:</i>				
Ownership: tenant	-0.219	0.083	0.032	0.155
other	-0.094	0.141	0.134	0.228
Housing value (ln)	0.080**	0.038	0.035	0.051
Housing value dummy for missing cases	1.133**	0.539	0.465	0.745
Living space per person (ln)	0.116	0.072	0.166*	0.085
<i>Housing problems:</i>				
moderate	-0.223	0.068	-0.115	0.105
rather serious	-0.331	0.123	-0.742	0.190
serious	-0.785	0.205	-0.677	0.226
<i>Social relations:</i>				
Little contact with relatives or friends			-0.203	0.071
No friends			0.008	0.078
<i>Personality:</i>				
Fatalism			-0.194	0.012
<i>Other personal characteristics:</i>				
Female	0.170	0.057	0.166**	0.071
Ethnicity (Gypsy)	-0.068	0.171	-0.172	0.214
Vocational training	0.189**	0.083	0.135	0.095
Secondary education	0.372	0.078	0.338	0.094
Higher education	0.667	0.102	0.432	0.131
17-29 yrs	0.356	0.104	0.383	0.140
30-39 yrs	0.052	0.094	0.211*	0.117
50-62 yrs	0.262	0.101	0.166	0.113
63 and more	0.660	0.135	0.794	0.154
<i>Other personal controls</i>				
	Yes		Yes	
cut1	-0.693	0.544	-4.445	0.762
cut2	-0.300	0.544	-3.906	0.759
cut3	0.074	0.543	-3.373	0.758
cut4	0.583	0.543	-2.670	0.757
cut5	0.863	0.543	-2.237	0.758
cut6	2.324	0.544	-0.747	0.758
cut7	2.706	0.545	-0.153	0.758
cut8	3.219	0.545	0.505	0.758
cut9	4.002	0.546	1.396	0.759
cut10	4.420	0.548	1.882	0.761

Observations	5003	3160
Wald chi ²	708.91	922.59
Pseudo R ²	0.0366	0.0731
Log likelihood	-10367.1	-6390.65

Other personal characteristics include Budapest, marital status, number of children, religiosity

* denotes significance at 10% level, ** denotes significance at 5 % level, **bold** denotes significance at 1% level. The models have been corrected for *heteroscedasticity using the Huber/White estimator of variance*.

Base categories: 3rd quintile group, employee, owner-occupier, no housing problems, elementary education or below, 40-49 years, single, no children

Table A7.2 Life satisfaction and objective well-being in 1998, OLS estimate

	Coef.	Std. Err
<i>Income</i>		
(equivalised annual household income)	0.00000126	0.000
<i>Labour market status:</i>		
Unemployed	-1.186	0.260
Disability pensioner	-0.677	0.170
Pensioner	-0.447	0.164
Self-employed	0.215	0.198
Student	1.343	0.200
Other inactive	-0.406**	0.169
<i>Housing:</i>		
Ownership: tenant	-0.056	0.201
other	-0.052	0.269
Housing value (ln)	0.124*	0.064
Housing value dummy for missing cases	1.643*	0.946
Living space per person (ln)	0.178*	0.107
Housing problems:		
moderate	-0.280	0.135
rather serious	-1.114	0.235
serious	-1.227	0.309
Female	0.070	0.091
Ethnicity (Gypsy)	-0.455	0.277
Vocational training	0.361	0.122
Secondary education	0.809	0.117
Higher education	1.077	0.162
17-29 yrs	0.885	0.177
30-39 yrs	0.456	0.152
50-62 yrs	0.226	0.148
63 and more	0.958	0.199
Budapest	-0.103	0.123
Married	0.673	0.168
Divorced	-0.596	0.211
Widow/er	0.213	0.229
1 child	0.038	0.129
2 children	0.141	0.166
3 children or more	0.426*	0.253
Religious	0.266**	0.110
Constant	1.653*	0.934
Observations	3160	
F ratio	22.26	
R ²	0.1788	

Notes: * denotes significance at 10% level, ** denotes significance at 5 % level, bold denotes significance at 1% level.

Base categories: 3rd quintile group, employee, owner-occupier, no housing problems, elementary education or below, 40-49 years, single, no children



WELL-BEING IN HUNGARY: PATCHWORK INEQUALITY

The thesis has provided a systematic and comprehensive analysis of social inequalities in Hungary during economic transition along specific dimensions of well-being, including gender and ethnic divisions, which have not been studied this way so far. It also provides the first systematic examination of subjective well-being in Hungary, and one of the very first studies for Eastern Europe.

The thesis has aimed to answer the following questions:

1. What were the differences in the well-being of various socioeconomic groups in Hungary at an early point of the transition, 1991-1992 and at a later phase, 1997-1998?
2. How did these differences evolve during the period 1992-1998?
3. What is the added value of the analysis of inequalities of various indicators of well-being compared to using current income measures?
4. How is satisfaction related to objective well-being, human capital and other personal characteristics?
5. Who are the 'winners' and 'losers' of transition in terms of happiness?

The period of social transformation may change social order in a fundamental way. The window of opportunity which opened in the late 1980s is that of increased personal and economic freedom. People may have felt increasing freedom to practice their religion or to start entrepreneurial activity. It seems, however, that the change of political regime did not bring real opportunities for all. The economic consequences of the transition, the transformational recession, however resulted in a 20% drop in GDP, a decline in incomes for the majority of the population and brought a nearly 30% fall in labour market participation, the latter being rather exceptional in Eastern Europe (Figure 2.4). At the same time, the welfare state substantially shrank as well. Social expenditure declined from 46% of the GDP in 1991 to 30% by 1998. In real terms, it amounted to a 30% fall. (Own calculations, based on (IMF 2001), see also Figure 2.9.) Although a certain cutback of social expenditure appears to be well justified both from an economic policy point of view (Kornai 1996b) and from a certain ideological perspective, which attributes a smaller role to the state, it may be regarded as a failure of the welfare system that the state did not protect the most needy. Relative poverty, measured as the population below 50% of mean equivalised household income, grew from 10% to 14% between 1992 and 1997 (Spéder 1998). Using the 1992 relative criterion as an absolute poverty standard (adjusted to annual

inflation), the rise is more dramatic: absolute poverty has increased from 10% to 31% in the same period (ibid.). Poverty has particularly affected children under the age of 6. In contrast, the relative income position of the elderly population has somewhat improved (see section 2.2 for details).

The *main hypothesis* of the thesis included the following:

1. The overview of various major empirical works measuring people's well-being in section 1.2 suggested that there is a certain important aspect of the quality of life, which is not adequately addressed by a sole income measure. A major comparative measure of this sort was the Human Development Index, which has redirected the simple emphasis on GDP as a measure of development. Other approaches, concerned with the distribution of resources across people, including studies on deprivation, social exclusion, on well-being, and also on happiness indicated the recurrence of disparities across social groups which remained uncaptured by a single income measure (see Table 1.1 for an overview of this literature).
2. A more specific hypothesis on the Hungarian situation may be called that of increased 'meritocracy', in other words *increased returns to human capital*. Human capital may increasingly influence earnings and also labour market participation in an economic system increasingly driven by the 'market coordination mechanism' (on the latter issue see Figure 2.1). It may also happen that 'abnormal quasi rents' will accrue to specific types of human capital, since labour supply adjusts to changing demand with some delay (Flemming and Micklewright 2000).
3. Existing literature reports a *prevailing disadvantage* of the major minority ethnic population, the *Romany*. This includes their particularly low labour market participation, their very low average level of educational attainment and also spatial concentration most hit by economic recession (Kertesi 1994; 1995; Ladányi 2001). There were various accounts on systematic discrimination against Gypsy people, including social services (Guglielmo and Waters 1996). Based on this, it was expected that the analysis would find signs of disadvantage in terms of various measures of well-being of the Gypsy ethnic group. Beyond this, they might be a worsening in the relative position of the Gypsy population, thus they may be potential group of losers of the transition process.

4. Existing empirical research on Hungary showed that beyond educational attainment *labour market position* plays a major role in 'success', measured in terms of income (Habich and Spéder 1998). Employment, or rather the lack of it, is a frequently measure of social exclusion or social cohesion. International evidence also suggests for example that the unemployed tend to be unhappy. Therefore it is expected that labour market participation would influence other elements of well-being over and above income. Unemployment, and inactivity are thus expected to be sources of disadvantage in other ways than simply causing low income. In contrast, entrepreneurs are expected to have gained from the increased economic freedom during transition.

5. Finally, it is expected that the advancing of transformation into capitalism has affected the *relationship between various aspects of well-being*. Increasing self-reliance of individuals made them increasingly liable for the promotion of their own well-being. Also, people may have been able to 'cushion' themselves during the early shock of transition against the negative impact of the decline of their incomes, by using past saving or changing their consumption patterns. This may have been less so over time. All this suggests that we can expect that the role of income as a determinant of well-being has strengthened over time.

How did the thesis aim to address these issues? The range of indicators of well-being used here included (1) objective well-being: income, housing quality, employment status, contacts with friends and relatives, and (2) subjective well-being: self-reported satisfaction with income, housing, neighbourhood, family life and with life as a whole up till now. The empirical analysis was based on two nationally representative surveys of Hungarian households, one of them covering the period from April 1991 to March 1992, the other the period from April 1997 to March 1998. The actual time period of the specific variables somewhat varies¹³¹.

¹³¹ Income is calculated as an annual average during the period before March 1992 or 1998, respectively, while housing conditions, labour market status and subjective well-being are indicators of the individual's state at one particular point in time, at the 31st of March of the relevant year. Therefore at times it seems appropriate to refer to the period between 1991 and 1997, other times 1992 and 1998 seem more accurate.

In the following sections of the conclusion I will explain the focus of the thesis on well-being from a theoretical point of view. Later sections will summarise the findings relating to the relationship between measures of well-being and income, the patterns of inequality across various population groups, and the changes of these disparities between 1992 and 1992. This will lead on to the sketches of an ambitious future research agenda. Finally, I will conclude with policy implications of the research.

8.1 WHAT IS THE SEN-SIBLE MEASURE OF WELL-BEING? NORMATIVE GOOD AND PERSONAL PREFERENCES

The theoretical basis of the thesis was Amartya Sen's capabilities approach. Sen establishes his normative position with a detailed critique of traditional economic approaches and other accounts of social justice. He argues that utilitarianism, interpreted either as revealed preference welfarism or as desire-fulfilment, is problematic on various grounds. First of all, utilitarianism is concerned with the maximisation of total utility, irrespective of its distribution across people, i.e. 'if it is shared by many or grabbed by a few' (Sen 1984c, p. 308). Utility in addition does not distinguish between different sources of pleasures or pain. Actions, rules, and institutions matter only to the extent they promote individuals' happiness. Although Sen expresses how much he had been inspired by John Rawls' theory of justice (1971), he criticises the focus on 'primary goods', which represent means rather than ends. A similar criticism holds for Dworkin's theory arguing for the equality of resources (Dworkin 1981). A further shortfall of both Rawls' and Dworkin's philosophies of social justice, according to Sen, is that they fail to account for interpersonal differences in converting resources into end-states. Libertarian theories (e.g. Nozick 1974), Sen argues, are inadequate, because they ignore consequences of actions. What is a more appropriate basis for social justice then?

Sen's theory of social good is concerned with what makes a good life for a human being. This 'good life', however, is not subject to recognition by local traditions and individual judgements, but rather is a common feature of humanity. This account of human good has strong theoretical connections with Aristotle's classic view. 'Eudaimonia', or 'human flourishing' as recent ethics translate it, is an objective good, and it is desirable and choiceworthy not simply because it is desired or chosen. Sen, however, clearly

distinguishes his account from the Aristotelian tradition by emphasising that in contrast to the overspecified view of good human life of that tradition, he does not aim for a full account of desirable human states. Rather, what Sen seems to aim for, is the identification of the 'space' of value-objects. His 'capability' perspective is concerned with the assessment of people's well-being and their freedom to pursue well-being. He names the former functionings and the latter capabilities. Functionings thus express actual achievements, states of 'doings or beings' for specific individuals. Capabilities are a broader notion, which also include real opportunity for people to achieve what they value. Capabilities include the ability to be adequately nourished, to avoid premature mortality, to take part in the life of the community, but also that of being able to be happy. Functionings, in contrast, are the state of being well nourished and actually taking part in the life of the community and leading a happy life. It is noteworthy that Sen regards happiness as a measure of functionings, although he strongly challenges it as an ultimate measure of social good (1984c, p. 308). This may seem contradictory. The core argument of Sen, however, is that happiness cannot be a *sole* criterion of measuring individual or social success. Happiness, nevertheless, is an object of value and as such can be part of an evaluative framework of the quality of life.

Although Sen's work received wide acclamation for advancing normative theory, many scholars have expressed their scepticism on the empirical applicability of his theory of capabilities. Sen deliberately refrains from providing a comprehensive list of capabilities, or even that of basic capabilities. He does not give a clear guidance on the methodology of evaluation either. How are the features of good life to be defined then? Nussbaum (2001) argues that a basic list of capabilities could be a basis for political principles. Such a list is not a complete account of human flourishing, and informed desires of people play a large role in finding such a list¹³². Similarly, Harsanyi also believes that there is a surprising uniformity in people's basic preferences, their basic desires (1997). 'Substantive goods' are intrinsically valuable, he argues, because 'they are the *objects of our basic desires*, which we largely share with other human beings, due to our *common human nature* and to our *common biological and psychological needs*' (1997, p. 141).

There is and should be a good measure of convergence between an intelligently normative proceduralism and a substantive good theory of a non-Platonist kind, sensitive to people's actual beliefs and values. The capabilities approach, rooted in a respect for desire as well as in an account of human dignity and other substantive human goods, balances these concerns well, refusing to take existing preferences as a benchmark of social policy, but refusing, as well, to dismiss utterly the psychology of imperfect human beings' (Nussbaum 2001, p. 87).

Various empirical studies have already used social standards as benchmarks for evaluation, to a lesser or greater extent. A recent classic approach is that of the Breadline Britain survey, which uses contemporary social standards as a criterion of enforced deprivation (Mack and Lansley 1985). In this logic, it is not just the lack of certain resources matters, but also whether those resources are regarded to be basic necessities by the majority of the community. Recently Nolan and Whelan argued (1996) for the simultaneous use of such enforced deprivation criteria and that of income for the measurement of deprivation. An interesting approach uses self-reliance as a poverty criterion, which is based on estimates on earnings-capacity, rather than actual lack of resources (Haveman and Bershadker 1998). Burchardt and Le Grand focus in the labour market, and try to identify voluntary non-employment (2002). One of the theoretical problems of such efforts in my view is that it is not really possible to empirically measure 'informed desire accounts', or 'informed preferences'. 'Informed preferences' of a person, as defined by Harsanyi, the Budapest-born Nobel laureate economist, 'are the hypothetical preferences he *would* have if he had all the relevant information and had made full use of this information' (1997, p. 133), and these preferences are simply not available for scrutiny¹³³. Informed preferences, as Harsanyi notes, at times may be antisocial preferences, such as sadism, envy, resentment, and malice. These preferences must be excluded (1982, p. 56). Also, a social consensus might include preferences which are bad for the people themselves or other ones which

¹³² Nussbaum herself does provide a list of 'central human capabilities' (2001, pp. 87-88). This includes capabilities relating to life, bodily health, emotions, affiliation, control over one's environment and others. She argues that the list has been subject to both cross-cultural academic discussion and also discussion in women's groups (2001, p. 85). Thus it includes items people would choose, and is based on informed agreement.

¹³³ In earlier publications (e.g. 1982), Harsanyi uses the term 'true preferences', but later he prefers the use of 'informed preferences' instead.

inhibit the freedom or rights of others. These considerations seem to call for the application of a certain moral criterion in setting standards of evaluation.

My starting position seems to lie very close to that of Nussbaum (2001): basic capabilities need to have intrinsic worth, but they also need to consider people's actual preferences to some extent. This latter condition will also help to avoid paternalism. I believe that the cherishable overlap between people's preferences and a 'substantive good theory' in case of *basic* capabilities. The use of basic capabilities is also compatible with the core feature of a liberal democracy, which entails the plurality of values and beliefs, which are often conflicting or incommensurable.

Measurement of well-being in the thesis

It follows from this that a normative account of people's well-being needs to focus primarily on *basic* indicators of well-being. Also, desires, people's subjective assessment of their situation, is an inherent element of such evaluation. This is the approach followed in the thesis. Therefore two distinct measures of well-being have been used: objective well-being and subjective one. Objective means here that the assessment is based on external standards. Subjective well-being is based on a self-assessed account. Objective measures included income, housing quality, employment status and contact with friends and relatives. Health, however important it seems for this purpose, unfortunately had to be omitted due to the lack of comparable data. Subjective measures of well-being included satisfaction with income, with housing, with neighbourhood, with family life, and with life up till now, and a few other measures. Satisfaction with life up till now will be used as a proxy for overall happiness.

Happiness is a measure of well-being examined in the thesis. Happiness can be interpreted as one *element* of a person's well-being, but alternatively it can also be used as a *single measure* of an individual's welfare. The latter approach is increasingly used in the emerging 'economics of happiness', which uses survey data on people's self-reported happiness or life satisfaction as a proxy for 'experienced utility' in order to test standard economic assumptions and theories, e.g. whether unemployment is 'bad'. Due to this dualistic nature of the happiness measure, I can say that the thesis not only includes happiness as a particular and rather important element of well-being, but in addition it is able to analyse

the relationship of various measures of well-being to 'utility'. This means that the analysis can draw together various different approaches of measuring individuals' quality of life, including resources (income), functionings and utility, each of them representing different objects of value, stemming from a rather different theoretical background. This unintended consequence of the plurality of the operationalisation of Sen's concept of well-being, may prove to be insightful in its own right.

The measurement of quality of life here focuses on *actual states of people, i.e. functionings*. These are 'realised capabilities', and do not incorporate the element of personal freedom. As I have argued in the introductory chapter, this implies that the most valued option of the capability set is being evaluated, if we assume rational, maximising behaviour. Increasing freedom is a major positive outcome of the political and economic transition. Although freedom has inherent value, the informational requirement of measuring capabilities would be immense. Available household surveys certainly would not lead us very far if we aimed to describe what are people's possible states of well-being, including options they could have chosen but have not done so. In the approach of the thesis, freedom is still an object of value: freedom matters to the extent as it actually enables people to achieve a certain state of well-being. Increased personal and economic freedom is expected to have had an impact on the actual ways people live their lives. If the fact that people have more freedom, and are able to be 'masters of their lives' to a greater extent than during Socialism is an important development of the transition process, it should be reflected in people's overall life satisfaction.

In my view it is not *growing* freedom which is a major underlying feature of the social processes studied here, but instead that of people getting accustomed to greater freedom and the resulting new institutions. The period studied here is from April 1991 to March 1998. Major political changes, first of all the first democratic election, preceded this date, and were held in 1990. Economic liberalisation had already started in the late 1980s, but major changes such as the abolition of price control, and the introduction of a bankruptcy law took place in 1990 and 1991¹³⁴ (for more, see Annex 2.1). The development of a vivid civil society, just to mention one phenomenon, however, takes a long time and had certainly not fully happened even by the late 1990s. My analysis thus captures ways of how

people are *actually using* their greater personal freedom, which also includes the aspect of how they are able to use their freedom, rather than trying to look at personalised accounts of people's *possible realisation* of their freedom.

8.2 FOR RICHER, FOR POORER? WELL-BEING AND INCOME

I have argued previously that functionings, measures which capture particular aspects of people's quality of life, are valuable in themselves, because they represent a 'social good'. As mentioned before, income is a measure of means rather than ends, thus is not a 'social good' in itself. If income, however, has a causal relationship with 'ends', i.e. with individuals' quality of life, then it provides an adequate measure of social inequality, moreover a parsimonious one. All that remains then, is to justify methodological choices relating to the use of income, and to ensure that the survey information is of good quality. Complementary measures of living standards then are just of minor importance, for example in assessing particular policy outcomes. This leads us to a major issue which concerns both academics and policy makers: is it worthwhile to embark into the complexity of non-income measures, and use multiple social indicators rather than just use income? The results of the thesis have contributed with substantial pieces of new evidence to this debate.

Money matters

Money was shown to be correlated with well-being in certain cases. The poor were more frequently facing housing problems, particularly serious problems (see Figure 4.6). This pattern became particularly pronounced in 1998. Rather interestingly, money was shown to be related to social relations (Figure 4.8). Higher income groups were less likely to suffer from social isolation, measured either as having no friends or having little or no contact with friends or relatives. The poorest 20% of the income distribution reported most commonly that they had no friends with whom they could discuss personal matters. Satisfaction, satisfaction with income, and satisfaction with life so far in particular, were increasing with income, controlling for a series of personal characteristics, such as age,

¹³⁴ The previous bankruptcy law, passed in 1986 had not been enforced.

gender, ethnicity, labour market status and others (Tables 6.2 and 7.3). Money thus does tend to bring satisfaction to people, other things being equal.

Income is inadequate: intra-household distribution is unknown

Money, however, may be an inadequate measure of an *individual's* well-being. A major shortfall of any income measure is that we have no information on the actual distribution of resources within the household. Individual incomes are inadequate measures of actual consumption opportunities, because people tend to share their resources within the household. Household income thus is a more adequate measure, but the issue of intra-household distribution remains unresolved (see section 3.2). There are major generally accepted accounts of sharing rules, which primarily account for differences in needs between adult and children household members. Beyond this, however, there may be significant differences in the relative consumption opportunities of adult members of the household. Marriage may be a 'bargain', where bargaining positions are based on specific and often unobservable factors (Lundberg and Pollak 1996; Lundberg et al. 1997). By contrast, individual level measures are able to capture a particular, individualised account of well-being. Resources, particularly access to leisure may be such measures (Cantillon and Nolan 2001). Satisfaction with income, or with life as a whole, may also be such alternative indicators.

Is there any gender difference which has been prevalent and would have remained uncovered, had I used solely equivalised household income, assuming equal sharing within the partners? The analysis has shown that women were particularly affected by labour market shrinking, and lost their jobs in much greater numbers than men did (Figure 4.2). In addition, women are less likely to become entrepreneurs than men (Table 4.4). There is some evidence that women tend to be more dissatisfied with their incomes than men, controlling for a series of personal characteristics, although this holds only in 1998 (Table 6.2). One possible explanation for this could have been that their consumption opportunities, thus their satisfaction, is primarily driven by their contribution to the common budget. The results show that over and above the household's income position, individuals satisfaction with income is positively correlated with their personal incomes (Table 6.3). This, however, could not give an explanation for the relative dissatisfaction of women, they remained relatively discontented even after controlling for their personal income. A possible, but speculative explanation is that women bear a greater responsibility

for managing the finances of the family, of making ends meet. This issue, however, would need further, more specific exploration. One possible explanation could be refuted, however: this difference is *not attributable to the generally gloomy disposition of women*. Women do not assess their housing and neighbourhood in any significantly different way than men do (Tables 6.8 and 6.13). Moreover, if anything, they tend to have a 'jolly disposition'. Women are consistently more satisfied with family life than men, *ceteris paribus* (Table 6.18). They may be also more satisfied with their lives as a whole, although this holds consistently only in 1992 and only in certain models in 1998 (Tables 7.3-7.5). In sum, these results suggest that *for a gender-specific account of well-being household income is an inadequate measure, even augmented by personal income*.

Income is inadequate: housing

Money is, moreover, at times very little correlated with certain aspects of well-being. Income was not correlated with either housing quality or with home ownership in 1992 (see section 4.3). This seems to reflect the fact that the housing market was heavily regulated by the state, and the distribution of public housing was not based on need, but on a co-existence of ad hoc principles (Dániel 1997a). The results also show that there was a significant change between 1992 and 1998, which resulted a strengthening association between money and housing quality. This most likely reflects the outcome of the major housing privatisation, the greater scope of individual responsibility in housing maintenance. These changes in the housing market could not have been described accurately by solely focusing on income.

Well-being contributes to happiness over and above income

One of the core findings of the thesis is that *objective well-being does matter over and above income*, in the sense that its specific measures contribute significantly and consistently to people's life satisfaction. The analysis in chapter 7 has shown that controlling for income, people's overall satisfaction is still correlated with their educational attainment, their labour market situation, their housing conditions and with their social relations (Tables 7.3-7.5). People who live in bad housing conditions tend to be markedly less happy than those who do not have to face such problems. The unemployed and the disability pensioners have significantly lower life satisfaction than employees, other things being equal. Students, on the other hand, enjoy much greater satisfaction on average. These results are similar to existing literature on Western Europe and the United States, which show that

unemployment tends to contribute to unhappiness (Clark and Oswald 1994; Winkelmann and Winkelmann 1998; Di Tella et al. 2001). My analysis, extending this framework, also shows that disability pensioners are also unhappy, controlling for income and other personal characteristics. Disability pensioners were also shown to have worse health condition than the pensioner population of the same age. This might suggest, that for many people entry into disability pensioner status may have been an undesirable event, and they could have been better off had they had the opportunity for keeping their jobs. A government who aims to maximise people's happiness, thus follows a rational strategy if it is concerned with various aspects of people's quality of life, over and above their income level.

In sum, contrary to the starting hypothesis (5), the analysis found *no signs of consistently strengthening relationship between income and other measures of well-being*, with the exception of housing conditions. Beyond this, the discussion has confirmed hypothesis 1 relating to the limited adequacy of a sole income measure and has shown that a wider focus than income, may be useful in various ways:

- 1) It can address issues of gender inequality, and that of the *intra-household distribution of resources* in particular
- 2) Certain measures may capture *longer term patterns of income*. Education in particular, but also labour market status to some extent, which were shown to correlate with income, life satisfaction and various other measures, may be proxies for 'permanent income': they may help to predict future incomes or to smooth fluctuations in current incomes.
- 3) Income may be an inadequate measure of well-being if a *non-market allocation of commodities or services* prevails. This seems to be the case of the housing market during Socialism, the consequences of which still prevailed in the early 1990s.
- 4) Happiness and specific measures of satisfaction may capture those aspects of people's lives which are *beyond the realm of the market*. Social relations, family life, religiosity and personality were all found to be major factors in determining overall happiness.

Thus, 1) and 2) refer to ways in which we can get a better measure of 'income' indirectly. 3) and 4) highlight the importance of factors which are beyond income but play a major role in people's quality of life.

8.3 STATIC ASPECTS OF INEQUALITY. IS THERE A SINGLE GROUP OF WELL-BEING POOR AND WELL-BEING RICH?

A recurring debate in social sciences is whether there is a specific social group, which is excluded from the mainstream society. The two main issues are whether specific groups experience disadvantage in various aspects of their lives, and whether people remain so over a longer period of time. These may be simply called multidimensionality and dynamics over time. Some scholars who use the term 'underclass' seem to emphasise the persistence of the phenomenon over time. Some of them talk about a 'culture of poverty', which is largely the fault of the poor themselves. The poor are poor due to their own choices, the argument goes, because they rely on social assistance rather than their own earnings from work, large numbers of them have out of wedlock child-births at a young age, or are even engaged in criminal activities (Murray 1984). The issue of the 'underclass', although it has been criticised by many, it seems to have drawn attention to the geographical concentration of deprived social groups (Wilson 1987).

The concept of social exclusion is increasingly gaining attention both at the level of the European Union and in various European countries. The term social exclusion is rather contested itself. A possible definition, developed by members of the Centre for Analysis of Social Exclusion, is as follows: '*An individual is socially excluded if he or she does not participate in key activities of the society in which he or she lives*' (Burchardt et al. 2002, p. 30). For Britain, the authors define four particular dimensions, that of consumption, production, political engagement and social interaction. They find that the poorest twenty percent of the population tend to show less political engagement and social interaction than others (Table 3.5, p. 36). Income, however, was correlated with specific aspects of social exclusion to a varying extent and at times only moderately, thus cannot describe these phenomena adequately and equally well. Strikingly, however, they find that practically nobody experienced social exclusion on all dimensions over four years or more (Table 3.9, p. 41). What can the focus on social exclusion add to our understanding of social inequalities? It seems that the primary merit of the approach is to redirect the attention of policy makers and that of the public from just the single measure of income towards non-monetary measures of the quality of life. This seems to be reflected in the recent agreement of the

EU on social indicators, which includes an extended list of non-income measures (Social Protection Committee 2001; Atkinson et al. 2002).

The approach pursued in the thesis is not that of social exclusion, i.e. the focus on the bottom of the distribution, but the whole range of the population. The reason is that I am concerned with social inequalities in general, and how these were affected by the economic transition. Transition is expected to increase chances of fundamental changes in individual's 'fates', by opening windows of opportunity or by closing others. A further convincing argument for the focus on inequality rather than deprivation comes from the political theorist, Brian Barry (2002). He notes that there may be two thresholds, rather than one in a society, including one of the deprived and that of the privileged few, both of which are detached from mainstream institutions. The rich may have exclusive access to certain resources, including e.g. political lobbying (in the US), or private insurance (in the UK).

Recurring patterns of inequality

There are a few recurring patterns of inequalities in Hungary in the period studied here. The *highly educated* do seem to do particularly well in various aspects of their lives. High levels of education tend to have positive returns in all measures of well-being. Greater educational attainment brings more income (Table 3.5), tends to increase chances of labour market participation (Tables 4.2 and 4.7), and in addition, the more educated tend to be more contented (chapters 5 and 7). This may be partly attributable to that education expresses past and future earning capacities, thus captures a certain aspect of 'permanent income'. High educational attainment, in addition, may also be a source of enjoyment, due to the increased understanding of the world or improved abilities to enjoy leisure¹³⁵. The one exception, satisfaction with family relations, does not seem to challenge fundamentally this generally prevailing regularity.

The well-being of *Romany ethnic group* displays various signs of disadvantage, confirming the starting hypothesis (see Hypothesis 3). They have significantly lower labour market

¹³⁵ Scitovsky argues that people do not really know how to create pleasure in their lives, and mentions that the enjoyment of culture for example needs a certain initial effort (1992).

participation. 1993 survey data show that unemployment among the Gypsy population is three times as high as that among the non-Gypsy (Kertesi 1994, p. 993). My results for 1998 show that only one in every three Roma works as an employee, while this ratio was over one in every two for the others (Table 4.1). Only 1.7% of the Roma were self-employed at this time, which is less than a third of the rate among the total population (Table 4.3). The high unemployment rate of the Romany population cannot be purely explained by their educational disadvantage (Table 4.7). It has been demonstrated by others previously that job search is more prevalent among the non-employed Gypsy population, thus low employment is not a result of their reluctance to work (Kertesi 1994). The occurrence of severe housing quality problems is 5-7 times as frequent among those of Gypsy ethnicity (Table 4.9). Somewhat unexpectedly they seem to have less social contacts (Table 4.12). They are also less satisfied with their neighbourhood, even after accounting for neighbourhood problems and settlement type (Table 6.13). The Romany also have lower mean equivalised household income (Table 3.5). This difference seems to be explained by labour market status and educational differences at the later data point, 1998. These findings, together with observations from the Helsinki Human Rights Watch group suggest that there is a prevailing discrimination against the Romany population.

Disability pensioners have bad health, both in subjective and objective standards. Their satisfaction with health was the lowest among all labour market groups, surpassing that of pensioners who have higher average age thus are expected to have poor health (Figures 5.4-5.5). As the 1998 survey data suggest, health problems also tend to be more frequent among disability pensioners than among pensioners below the age of 65 years (section 5.3). Disability pensioners also tend to be dissatisfied with their incomes and living standards. Their relative situation, however, seems to be somewhat better than the unemployed or the group of inactive who are neither students nor pensioners, but it remains below that of old age pensioners. Disability pensioners are also significantly less happy than employees, controlling for differences in income, age and other personal characteristics. This might be attributable to their poorer health or may be a sign that their withdrawal from the labour market is to a large extent involuntary.

A further recurring pattern is the relative contentment of those who are *religious*, defined as those who regularly attend religious services. The religious tend to be more satisfied with various aspects of their lives, and also with their life in general. This relative difference

prevails even after accounting for major correlates of subjective well-being, including income, labour market status, age, and a series of other characteristics (chapters 6 and 7). It is noteworthy, however, that the period of between 1992 and 1998 did not bring *increasing* satisfaction for the churchgoers, however, despite the increasing social role of institutionalised religion (Table 7.6). A possible explanation may be that it was the political changes in the early 1990s which had affected people's personal ideological freedom the most. At this time the new liberal political system distanced itself from the atheist ideological tradition of the Socialist regime, and a variety of personal beliefs could be expressed more openly.

Patchwork inequality

Living in the capital seems to bring various advantages, but it also has clear downsides. Inhabitants of Budapest seem to prosper better than others: their income is significantly higher (Table 3.5). Somewhat counterintuitively, they tend to experience less social isolation than people who live in villages and small towns. It seems that the life in the capital, and actually life in cities as well, increases the probability of people having at least one close friend and also that of seeing their relatives and friends at least once a month (Table 4.12). They, however, tend to be more dissatisfied with their neighbourhood (Table 6.13). From the point of view of overall happiness, however, the location of residence does not seem to matter, once controlling for income and personal characteristics (Tables 7.3-7.5).

Age plays a varying, but at times a major role in explaining differences of well-being across people. Age has an *inverted U-shaped* pattern for income (in 1992) (Table 3.5), for employee status (Table 4.2), and for entrepreneurship (Table 4.4), thus the middle-aged groups tend to have the highest income and the highest probability of being in employment. Results for 1992 show that those households where the head was 48 years old had the highest equivalised income, controlling for differences in labour market participation rates and other factors (Table 3.5). The age of the head of household, however, had no significant impact of on income in 1998. These findings are similar to that of Redmond and Kattuman for Hungary, who find that age of the head of household is significant in 1987, but not in 1995 (2001, Table 2, p. 472). This seems to imply that the role of demographic characteristics has declined over time, and rather education and labour market became the

major determinants of income (see Table 3.6 in chapter 3). Results for labour market participation show that the young (containing many new labour market entrants), those between 17 and 29, and also the oldest working age group, those between 50 and 62 are much less likely to be in work, either as an employee or as a self-employed, than those in between.

Age, in contrast, tends to have a pronounced *U-shaped* pattern for life satisfaction. Young adults, those below 30, and the pensioner age group tend to be much more satisfied with their life so far than the middle-aged group (Tables 7.3-7.5). The impact of youth is at least as great as richness, that is belonging to the top 20% of the income distribution. Interestingly, old age seems to play a particular role in satisfaction with incomes. Pensioners tend to be more contented with their incomes than middle age people in work, controlling for differences in incomes and other personal characteristics (Table 6.2). This might be explained with differences in aspirations.

In conclusion, it seems that *social inequalities show a rather complex picture, which cannot be solely reduced to the existence of particular groups of well-being poor and well-being rich*. People with high education tend to enjoy success not purely in money terms, but also in terms of their overall quality of life. The religious were found to be consistently happier than non churchgoers. In contrast, the results show that the Romany ethnic group tends to have lower levels of well-being in various ways. As discussed previously, women were particularly hit by the overall decline of employment. They tend to be less satisfied with their incomes, but at the same time they are more contented with their family lives, other things being equal. Other personal characteristics, such as residence in the capital, or middle age, were correlated with high incomes, but turned out to play a more complex role in social inequalities in general. Although interestingly life in the capital decreases the prevalence of social isolation, it tends to bring lower satisfaction with the neighbourhood. Middle age in itself tends to be the most unhappy stage in life, controlling for income and other personal characteristics.

8.4 DYNAMIC ASPECTS OF INEQUALITY: CHANGES OVER THE 1990S

The research also aimed to understand the stability of the patterns of social inequality. Were there any particular changes in the relative position of social groups between 1991

and 1998? The results show that people's satisfaction with their life so far has declined over time. Similarly, most other specific measures of subjective well-being, including satisfaction with income, housing and health have fallen (Figure 5.2). This has led some scholars to conclude that Hungarians are embittered with the change of the system (Róbert 1999). This, however, seems to be an overstatement in my view, because there is a clear rise in people's assessment of their future prospects by 1998. Have the determinants of subjective well-being, and overall life satisfaction in particular changed over time? Do these changes help to explain the overall decline in reported satisfaction with life so far?

Higher education brought more income for people in the late 1990s than early on. The educational attainment of household members, and that of the head of household in particular, increasingly determined the income of the household (Table 3.5). Tertiary education also brought increasing 'skills premiums', the earnings gap compared to the lowest educated (unskilled) group has widened over time (section 4.2). These findings seem to validate the expectations formulated in Hypothesis 2. Economic success thus increasingly depends on an individual's human capital, and also probably on her effort (which remains unobserved here). Higher education in particular plays a positive role. Contrary to the expectations, the analysis found no clear overall trend for the increasing role of educational attainment in labour market participation. There was not evidence for the increased role of education in overall life satisfaction either.

As a result of the massive housing privatisation in the early 1990s, tenant status is increasingly associated with relative disadvantage. Those who remained tenants tend to experience more severe housing quality problems (Figure 4.5), and they are less satisfied with their housing and their neighbourhood (Tables 6.7-9 and 6.12). There is strengthening link between low income and tenant status, which suggests that it is mostly the needy who live in social housing (Table 4.8). To consider it as a positive achievement of housing policy, however, would be a rushed judgement. As the analysis of Dávid shows, housing privatisation was to a large extent a 'national gift', primarily benefiting those the most who lived in the most valuable properties and those who could afford to buy their homes (Dániel 1997b).

The life satisfaction of the middle income group has markedly declined in the period examined here (see Figure 7.1). Nevertheless, life satisfaction still remains a monotonically

increasing function of income, controlling for labour market participation and other personal characteristics. Income thus tends to bring happiness for Hungarians, similar to citizens of other nations (Easterlin 1974; Diener and Oishi 2000). This is supported by the results in chapter 5, which show that satisfaction with income is positively correlated with satisfaction with life so far and also with satisfaction with future prospects (Tables 5.2 and 5.3). A further interesting aspect of the relationship of income and utility is how income change affects utility. For this, however, a panel dataset would be necessary, which keeps track of the situation of particular individuals over time. Psychological evidence suggests that people are more sensitive to losses than gains (Kahneman, Knetsch and Thaler 1991). This implies that the majority of the Hungarian population, who were affected by the decline in their incomes in real terms, may have suffered a decline in their subjective well-being.

The self-employed may be called one of the major winners of the transition process, indicated by their increased life satisfaction or in economic terms, 'experienced utility'. While the self-employed do not appear to be any happier than employees in 1992, their level of happiness shows a major improvement between 1992 and 1998, controlling for income, education and various other personal characteristics (Tables 7.3-6). There is also evidence for the increasing job satisfaction of the self-employed over time, which surpassed that of employees by 1998 (Figures 5.4 and 5.5). Existing research shows that entrepreneurs are a rather stratified group, consisting in part of those who were pushed into self-employment due to the loss of their jobs (Róbert 2001; Róbert and Bukodi 2001). The overall improvement of their situation, however, does not seem to be surprising, as the international literature suggests. Entrepreneurship brings higher job satisfaction, and a large number of people would prefer to be self-employed, both in Eastern and Western Europe (Blanchflower et al. 2001).

Interestingly, the results show that the fundamental sources of happiness have mostly remained unchanged despite the turmoil of transition. The majority of the coefficients of the estimated micro-econometric functions which aim to estimate changes over time are not significant (see Table 7.6). One exception is the improvement in the situation of the self-employed. How is the declining overall life satisfaction may be explained then? Declining happiness may be due to a *compositional change*: the factors which bring satisfaction or dissatisfaction to people are largely the same, and rather it is the possession

of such resources or characteristics that have changed over time and it was this change that lead to increasing or declining satisfaction for specific groups. Growing non-employment for example, a major feature of economic changes in Hungary, which includes not only unemployment but also involuntary withdrawal from the labour market, is expected to contribute to lower the satisfaction of those affected by it.

8.5 FUTURE DIRECTIONS FOR RESEARCH: 'SOCIAL MECHANISMS' RATHER THAN CASE STUDIES

The analysis presented here can be regarded as a *case study* of the social impacts of a major societal transformation. (The section which summarises these findings is '8.4 Dynamic aspects of inequality'.) It may be also thought of as a case study addressing the links between various measures of quality of life, including income, objective well-being, subjective well-being and also happiness. (See e.g. section 8.2 on 'For richer, for poorer? Well-being and income'.) It may be also regarded as a *series of case studies*, which observe and analyze inequalities in various distinct aspects of people's lives and searches for regularities in these aspects, in the factors which influence these inequalities. (Section 8.3 - 'Recurring patterns of inequality' and 'Patchwork inequality' - addresses these issues.)

The thesis provides new empirical evidence, which may be valuable in itself. A more important matter, in my view, is however the contribution of the thesis in *extending the validity of regularities which have been observed in other, often rather different, countries* from Hungary. One such example is the study of happiness during transition. Existing literature on happiness primarily focused on Western Europe and the United States, and found recurring patterns in the micro-econometric structure of happiness. My results show that the determinants of happiness are largely unaffected even by a major societal landslide. Unemployment is a source of discontentment, and students tend to be happy. This has not changed over time, but the particular individuals who are unemployed and students are different and also their number has changed.

International literature also provided a benchmark for assessing methodological choices and indicated possible ways to develop future research. The analysis of income inequality in chapter 3 was preceded by a detailed account of the methodological choices. This led to

the conclusion that future research could include an analysis of the distributional impact of in-kind benefits, and that of differences in housing costs. The assumption of equal sharing of resources within the household could also be put to the test.

The thesis also contributes to knowledge by the *critical assessment of existing literature*. I have challenged the recurring claim that Hungarians are hugely pessimistic. As shown in chapter 5, Hungarians are not unhappier than other nations in the region. The survey evidence, however, reveals that there is a systematic difference in the level of happiness between Western-Europe and that of Central-Eastern Europe, and also that in general countries of the former Soviet Union score worse than other Eastern European nations (Table 5.1). This also implies that the relatively high suicide rate in Hungary (Figure 2.8), which has been used as a proxy for alienation, anomie and life satisfaction by Hungarian scholars, appears to be only a poor predictor of overall happiness in the country. In the period examined here, satisfaction with life so far has somewhat declined, but satisfaction with future prospects grew, which is probably a sign of growing optimism (Figure 5.1). On the basis of this survey evidence, assertions in the literature relating to the nation's general disappointment with transition, and people 'gritting their teeth', appear to be unfounded.

A further contribution of the thesis is the *discovery of new facts*. Such possible new discovery is that basic indicators of objective well-being ('functionings') may not be purely 'good' from a moral philosophy point of view, but also desirable for people. As shown in chapter 7, measures of housing quality, labour market participation and also social contacts tend to contribute to people's happiness, even after accounting for differences in income and a series of personal characteristics. A further, intriguing finding refers to the relative dissatisfaction of women with their incomes, even after controlling for the income level of the household and also for the person's own contribution to it. Many of these, however, call for further explanation. Are these a peculiar one-time phenomenon, or possibly just statistical artifacts? (Women's relative dissatisfaction with their incomes holds only in 1998.) Or do they refer to social regularities which have remained unobserved thus far and call for further future research? Beyond this, what is the *explanation* for these phenomenon?

A possibly fruitful direction for future research is the route offered by some social theorists, who call for '*social mechanisms*'. Societies are rather driven by 'mechanisms', rather than laws. As Elster explains, '*mechanisms are frequently occurring and easily recognizable causal*

patterns that are triggered under generally unknown conditions or with indeterminate consequences. They allow us to explain but not to predict' (1998, p. 45, original emphasis). The quest for mechanisms is the attainable ultimate research goal, since laws are just not inherent in the way society functions. Hedström and Swedberg note that the mechanism approach is interdisciplinary, including most economists, psychologists, and interestingly also biologists, and they argue that 'the notion of "laws" is generally reserved for physics, which is the only science that can produce explanations based upon powerful and often counterintuitive laws with no significant exceptions' (1998b, p. 3). Hedström and Swedberg and many others address their criticisms primarily to the discipline of sociology, for its 'bad' theorising (Boudon 1991, p. 519), and also for inferring causality purely from statistical results, rather than meaningful connection between events (such criticism is formulated by e.g. Coleman 1986; Esping-Andersen 2000; Goldthorpe 2000).

What we need, as several outstanding sociologists argue, are 'middle-range' theories, using the term of Robert Merton (Merton 1967; Boudon 1991), or the exploration of mechanisms which describe the interaction between macro-level events and individual actors (Coleman 1986; 1990). The so-called macro-micro-macro model, initially described by Coleman (1986, p. 1322) includes three different types of social mechanisms. The first tries to establish the relationship between macro-level events and the individual. The second analyses how the individual assimilates the impact of these events. The third, and possibly most challenging, type of mechanisms seek to explain how a number of individuals, through their actions and interactions, generate macro-level outcomes. A widely cited example of such approach in sociology is the classic work of Weber, *The Protestant Ethic and the Spirit of Capitalism* (1930). According to Coleman the main thread of Weber's argument is to explain how Protestant religious doctrine (macro level) affected individual values (micro level), then how these values changed orientations to economic behaviour (micro level). Coleman goes on to say that what Weber 'fails to show is how these individual orientations combined to produce the structure of economic organization that we call capitalism' (Coleman 1986, p. 1323). This link between micro to macro level appears to be, in Coleman's words, 'the main intellectual hurdle' both for empirical research and for theory. It is this issue which is addressed in the modern classic of Thomas Schelling, *Micromotives and Macrobehaviour* (1978), and in its probably most famous essay on segregation, 'Sorting and mixing: race and sex'.

The principles of such research agenda seems to include *methodological individualism*, the use of *large scale datasets*, and possibly also *rational action theory* (Blossfeld and Prein 1998; Goldthorpe 2000). The focus of the current thesis on the individual as a unit of analysis thus seems to be justified on various grounds. Individuals are the main concern of research on the quality of life and also that of the theory of capabilities, which justifies the focus on individuals from a normative point of view. In addition, as it has just been argued here, social theory needs to explain social phenomenon based on individual actors. This is the approach followed by mainstream economics as well. The use of large scale datasets provides a useful analytic tool for the observation of regularities and also that of causality. The latter, however, as argued before, however cannot be purely justified on the basis of statistical findings. Rational action theory is probably the most disputed element of this agenda (e.g. Simon 1982). Certain behavioral assumptions, however, are essential for modeling individual's behaviour. Interestingly, recently several economists call for an increased reliance on psychology within standard economics, more precisely for the integration of certain behavioral regularities (Rabin 1998), such as framing effects and reference level effects (with a large contribution of Kahneman on these issues, discussed in chapter 5). Such synthesis would sustain the acclaimed parsimony of economics, and it would also increase the behavioral validity of its basic assumptions.

Future research on well-being has various possible intriguing alternatives in this intellectual framework. (1) How do welfare policies affect people? This involves a *causal analysis* of the impact of specific policies on people's well-being. Changes in benefit entitlement for example may have an impact on consumption patterns. (On this see e.g. Lundberg et al. 1997, discussed in chapter 3). Another possible issue is whether more equal opportunities in education for the Romany would achieve higher educational attainment. (2) Do these changes in well-being trigger changes in people's behaviour? Do people adjust to new circumstances? These issues could be addressed by a *longitudinal analysis* of individuals' well-being, possibly including measures of subjective well-being. Referring back to the example cited before, does higher educational attainment of the Romany population contribute to greater labour market participation and ultimately greater social integration? (3) The possible, and more difficult micro-to-macro link would address how these individual level changes affect society, and policy making in particular. The analysis needs to address how individuals interact and how specific actions are summoned to a macro level, which involves the analysis of collective action and also that of existing institutional structures.

Following the example used here, a new Romany intelligentsia for example may form a powerful interest group, which could increase the political and social influence of the whole ethnic group. These issues appear to be most commonly addressed by political scientists.

A key issue whether future research will be able to analyse dynamic processes. From a social science point of view it is rather worrying that there is no general household panel data for Hungary since 1997. In addition, there are very limited resources for even cross-sectional surveys, which necessitates a partly commercial orientation of the actual survey questions.

The thesis has raised various possibly promising directions for future research. Many of these, however, have substantive new data requirements. One such issue is that of *relative deprivation within the household*. Is there evidence for the deprivation of wives? In what aspects of well-being? If there is such deprivation, what is the explanation for these disparities between partners? Empirical research could increasingly address issues relating to *regions or areas*. This could for example explain some of the so far unexplained ethnic disparities. There is particularly little evidence on neighbourhood effects. Is there a possible specific social exclusion problem, affecting certain areas in particular? Is there any specific 'context' effect other than household and economic factors determining poverty (e.g. local unemployment rates, social services, etc.)? Finally, an intriguing issue is that of the interaction between various aspects of well-being in the longer run. For example, does long-term non-employment bring deteriorating health, social isolation and increasing unhappiness? Do bad housing conditions affect people's health or social interaction between neighbours? To what extent does poor health inhibit labour market participation for the disabled who want to work? These questions illustrate the set of possible problems and the magnitude of these issues.

8.6 POLICY IMPLICATIONS

Measurement of well-being, over and above that of income, is a major issue, justified by various considerations, but it has received rather limited attention in policy making in Hungary so far. Why should policy increasingly focus on social indicators?

Promoting well-being: a means for maximising overall welfare

If a government is intent on maximising utility, then promoting well-being is just as 'rational' as going for growth and higher personal incomes. As I have shown before, well-being of people is an important element of overall happiness, over and above income. For example, the renovation of public housing and control of noise and air pollution are not purely justified because they generally regarded to be socially good or efficient, but it is shown that they also contribute to the subjective well-being of people. The loss of happiness for those who are non-employed, over and above their dissatisfaction resulting from their lower income level, suggests that policies which promote labour market participation for those who wish to work would increase overall welfare.

Raising the educational attainment of marginal social groups appears to be a major mechanism for their social integration. As Kertesi argues, a substantial investment into the education of the Gypsy population, particularly raising their participation in secondary education, is a possible key to their future social integration (1994; 1995). He cites (1994) the example of the United States on a similar policy relating to the black population, which has most successfully contributed to the creation of a new, black middle class (see Smith and Welch 1989).

Measures of well-being as indicators of social cohesion

If the government aims to promote social cohesion, then it is not enough to focus simply on policies relating to the redistribution of income¹³⁶. As argued before, income is often poorly correlated with even rather basic indicators of well-being. Indicators of well-being do provide valuable information for policy assessment, policy development and the co-ordination of specific policy tools.

Unlike other European countries, social exclusion or well-being has not received particular attention among policy makers in Hungary. This, however, may change, as a result of the

¹³⁶ Note, however, that 'social cohesion' is not the sole reason for this. Similar argument can be also made on efficiency grounds: for example in favour of the provision of public goods by the state when the market would fail to produce a Pareto efficient outcome.

increasing academic evidence¹³⁷ or more likely due to the increasing political pressure from the European Union. The problem of social exclusion seems to be particularly relevant from the perspective of the possibly inherent middle class 'bias' of welfare policies. Welfare state programs tend to benefit the middle classes to a great extent (Stigler 1970; Goodin and Le Grand 1987). As the Director's law argues, 'public expenditures are made for the primary benefit of the middle classes, and financed with taxes which are borne in considerable part by the poor and the rich' (Stigler 1970). If the government aims to promote social cohesion, this effort necessitates a more detailed monitoring of prevailing social disparities and the assessment of policies in terms of their social outcomes.

'Policy makes politics'

Political scientists seem to discover increasingly that 'new policies create new politics', thus rather than treating policy as a result of political forces (the dependent variable), they analyse policy as a cause of those forces (the independent variable) (e.g. Pierson 1993). Pierson argues that the activity of interest groups often follows the implementation of public policies, rather than precedes them. In particular the redistribution of resources and the incentive effects of government programs can shape interest groups. One further issue of concern is whether policy choices create so-called 'lock in effects'. Lock in effects occur when people make important commitments as a response to policy arrangements, and as a result future policy changes may cause major disruptions. Policy outcomes thus matter as causes of future policy making. From this point of view, information on the 'losers' and 'winners' of specific policies is of crucial political importance for the incumbent political party.

Greater public demand for performance indicators

The development of the civil society and also the strengthening of particular interest groups may highlight the importance of a consistent system of social indicators. Citizens may increasingly demand information on the performance of the government, as their tax awareness increases. In this respect, the performance of the welfare system in particular is expected to be one of the top priorities.

¹³⁷ Such approaches have proved to be particularly fruitful for the analysis of transition countries (Cornia et

Monitoring social outcomes in the European Union

Recent developments in the European social agenda are expected to affect future member states as well, including Hungary. Social inclusion was accepted as one of the key overall strategies of the Union for the next decade by the Lisbon European Council in March 2000. For the implementation of this strategy the Council agreed to introduce a new 'open method of coordination'. This means that combating social exclusion is the member states' responsibility, following Union guidelines and including periodic monitoring and evaluation. Later, in the Laeken meeting in December 2001, the member states agreed on the establishment of a set of common indicators (Social Protection Committee 2001). This meeting has also expressed the intention that ten candidate countries, including Hungary, would be members by the 2004 European Parliament elections.

The set of indicators, greatly influenced by the Atkinson report (2002), includes primary indicators such as low income, the persistence of low income, regional cohesion, long term unemployment rate, people living in jobless households, early school leavers, life expectancy and self perceived health status (Social Protection Committee 2001). These are complemented with secondary indicators, which both support the lead indicators and also describe other dimensions of the problems. Beyond these, there may also be a third level of indicators, accepted by the member states themselves in their national Action Plans on Social Inclusion. These, however, would not be harmonized at EU level. The Social Protection Committee notes that further work needs to be done e.g. relating to housing, social participation, territorial issues and the gender dimension of social exclusion. They add that social monitoring may be severely constrained due to the lack of adequate data, thus the development of statistical capacity is a crucial issue. The Laeken declaration explicitly refers to the candidate countries: 'The European Council stresses the need to reinforce the statistical machinery and calls on the Commission *gradually to involve the candidate countries* in this process' (European Council 2001, p. 8, my emphasis).

Enlargement will greatly increase disparities within the European Union, probably even doubling the income gaps between countries and regions. As the Cohesion Report notes, if

al. 1996; Micklewright 1999; Micklewright and Ismail 2001).

a Union of 27 existed tomorrow 'at national level, over *one-third* of the population would live in countries with an income per head less than 90% of the Union average – the current threshold for eligibility for aid under the Cohesion Fund – compared to *one-sixth* in the present EU15' (European Commission 2001). Social cohesion, which has been a matter of concern for a long time in the Union, will draw even greater attention with the enlargement of the Union. The adequate monitoring social exclusion in Central and Eastern European countries seems to be already a concern for the European Union. The pressure for greater statistical capacity to measure people's well-being in the candidate countries is very likely to grow. In this case, the comparability of the indicators with current member states will become essential. For Hungary, in the limelight of the forthcoming accession, the issue of social indicators might turn into an important domestic policy issue.

In sum, a greater use of social indicators, which aim to measure the well-being of citizens is by no means only a matter of how 'benevolent' or paternalist the incumbent political power is. Rather, it appears to be inherently part of the rational strategy of a vote-maximising government. The forthcoming EU accession of Hungary also seems to point in the same direction. Information on social inequalities, and the explanation of the underlying causes is thus essential for the politics of the near future. The study of social inequalities is essential, because paraphrasing Tolstoy, the poor may all look alike, but each of them is unhappy in their own way.

APPENDICES

APPENDIX A

BASIC SAMPLE CHARACTERISTICS

Basic features:

- Nationally representative samples of households
- Sampling strata: 4 (region, settlement size, feature of neighbourhood based on census, flat)
- 1991/92: Hungarian Household Panel Survey, wave 1 (The panel has finished in 1996/97. Due to the very high attrition the use of the 6th wave did not seem to be appropriate.)
- 1997/98: Hungarian Household Monitor.
- The original sample of 7265 and 5293 individuals in 1991/92 and 1997/98, respectively was restricted to the adult population, which means persons over the age of 16. The so-called ‘proxies’ were also excluded, in other words those individuals who did not give response to the detailed ‘individual’s questionnaire’. The resulting sample sizes are 5424 and 3827 in the two survey years (unweighted).
- The two datasets have weights of a rather different nature. In 1992, a so-called ‘population weight’ was used in order to correct the overrepresentation of the Budapest population, which resulted from the sample design. The ‘analytic weight’ of 1998 is less crucial, since it only adjusts for a better fit of the sample to the original population (based on the data of the microcensus in 1996).

Table 1. Basic sample characteristics

	1991/92	1997/98
Sample size:		
Households (unweighted)	2668	2011
Individuals (unweighted)	7265	5293
<i>Out of which:</i>		
Personal questionnaire	5424	3827
Proxy	347	565
No questionnaire (respondent is child or other reason)	1493	901
Survey period*	April 1991 - March 1992	April 1997 – March 1998
Survey date	27 April – 6 July 1992	11 May – 4 June 1998

*The choice of the survey period is related to the annual tax report deadline in March. The survey institution believes that this is the time when individuals’ knowledge on the income

situation of the past 12 months is the most thorough, thus the income data are most likely to be reliable.

Sampling

Both samples are household probability samples with proportional stratification.

The Hungarian Household Panel (HHP) 1992, the first wave of the panel, applied four strata for selecting household, including region, settlement size, neighbourhood feature and finally, household. Firstly, 75 settlements were selected based on region and settlement size. Secondly the households were selected using the data of the Central Registry and Election Office. The households had equal probability of being selected within their neighbourhood strata. The sample has included additional observations over the desired sample size, considering expected dropouts. Had it not been done so, the basic condition of probability samples would not have been fulfilled for the additional households, namely that of having equal probability for being selected.

Originally HHP consisted of two samples: a Budapest subsample and a national sample. The national sample consisted of approximately 2000 households and the capital subsample of about 600. After finishing the HHP study a new database was created by merging the two subsamples. Since the Hungarian capital was oversampled in the new, unified sample a specific weight was introduced. Households living in Budapest and their members were given a weight of 0.4. Other (non-Budapest) households got a value of 1, including all their members. This merged dataset was used in the thesis.

The sampling method of the Household Monitor (HM) was the same as that of the HHP, equally using four strata. The HM was based on a strata of 89 settlements, and at the final stage included 2011 individuals.

The samples consisted of 2668 and 2011 households and 7265 and 5293 individuals in the two survey years, respectively (Table 1.). The surveys are thus comparable in size, but at certain points of the analysis this size may have resulted inadequate precision of estimates. In particular, the sample size may be small for detecting changes between surveys in parameters estimated in multivariate models. (*Ceteris paribus*, a doubling of sample size would achieve a reduction in standard errors by a factor of root 2.)

Variable definitions

The Household Monitor can be regarded as a continuation of the Household Panel, preserving its main topics but not its longitudinal feature. The definition of income is comparable and is equally based on a detailed investigation of income components. The very few changes in the surveys reflect policy changes referring to specific income types. Both surveys include detailed and comparable information on the labour market status, housing conditions and subjective well-being of respondents, and also on their demographic characteristics.

Response rates

Response rates have fallen during transition in various countries, which seems to cause concerns for representativeness and coverage (Flemming and Micklewright 1999, 2000). Flemming and Micklewright describe a decline in the willingness of households to respond to surveys in various countries. Evidence for Hungary indicates that the response rates to budget surveys conducted by the Central Statistical Office fell from an average of 78% in the years between 1983 and 1987 to an average of 61% by 1993-1995 (1999, p. 52). There was also some decline in the response rates in the TÁRKI household surveys used in this study. The response rates for households fell from 71% in 1992 to 66% in 1998. The problem was particularly grave in Budapest, while families in small towns and villages were the most willing to participate. Therefore the previously mentioned sampling method, which accounted for the possible dropouts, was essential in preserving the representativeness of the surveys.

The declining participation is also reflected in the increasing number of the so-called proxies, which are simplified questionnaires for those household members who are not present or who do not want to complete the full personal questionnaire. As Table 1 shows, the number of proxies had increased from 5% to 11% in percentage of the individuals approached within the responding households.

Table 2. Descriptive statistics of basic survey variables (unweighted, individual level variables)

	1991/92		1997/98	
	Mean	Std. Dev.	Mean	Std. Dev.
<i>Gender:</i>				
Female	0.53	0.50	0.53	0.50
<i>Age:</i> (continuous var., years)				
	38.4	22.6	41.1	22.6
<i>Age:</i> (categorical var., years)				
0-16	0.22	0.41	0.17	0.38
17-29	0.17	0.38	0.18	0.38
30-39	0.14	0.35	0.11	0.31
40-49	0.13	0.34	0.16	0.36
50-62	0.16	0.37	0.18	0.39
63+	0.18	0.38	0.20	0.40
<i>Educational attainment:</i>				
Up to elementary education	0.42	0.49	0.41	0.49
Vocational training	0.22	0.42	0.26	0.44
High school (A level)	0.24	0.43	0.22	0.42
Higher education	0.12	0.33	0.11	0.31
<i>Settlement type:</i>				
Village or small town	0.31	0.46	0.37	0.48
Town	0.23	0.42	0.26	0.44
County centre	0.11	0.31	0.19	0.39
Capital (Budapest)	0.35	0.48	0.19	0.39
<i>Employment status:</i>				
Employee	0.49	0.50	0.37	0.48
Unemployed	0.04	0.19	0.03	0.18
Disability pensioner	0.05	0.23	0.07	0.26
Pensioner	0.26	0.44	0.31	0.46
Self-employed	0.04	0.19	0.04	0.20
Student	0.06	0.23	0.07	0.26
Other inactive	0.06	0.24	0.10	0.29
<i>Marital status:</i>				
Single	0.37	0.48	0.35	0.48
Married	0.48	0.50	0.47	0.50
Divorced	0.06	0.24	0.07	0.25
Widow/er	0.10	0.30	0.11	0.32

APPENDIX B

DEFINITION OF VARIABLES USED IN THE THESIS

The descriptions indicate the base categories used in the regression models.

Age: a set of dummy variables, taking on the value of 1 depending on the respondent's age in years: 17-29, 30-39, 40-49, 50-62, 63 and more. The base category is 40-49 years.

Age of head of household: continuous variable, the age of head of household in years

Age of smallest child: a set of dummy variables, taking on the value of 1 depending on the age of the smallest child in the households in years: 0-3 years, 4-9 years, 10-16 years.

Assets: a set of dummy variables, taking on the value of 1 depending on whether the household has a second home, a holiday home, a land or a car

Debt: dummy, expressing whether the household had any debt to either a private person, a bank or something else. (The absolute amount of outstanding debt gave a worse model, probably due to more missing values and the potential problem of misreporting.)

Disability pensioner. 1992 - those receiving disability pension. *1998* – the survey questions are different, and refer to the date and status of becoming pensioner. Only those who became disability pensioners after 1988 were coded as currently disability pensioners. The purpose was to try to approximately exclude those, who have turned into old-age pensioners from their earlier disability pensioner status by 1998.

A dummy, taking the value of 1 if the respondent is disability pensioner, and 0 otherwise.

Disability pensioner in the household: A dummy variable, taking the value of 1 if there is a disability pensioner in the household, and 0 otherwise.

Educational level: a set of dummy variables, taking on the value of 1 depending on the respondent's level of educational attainment: elementary education or below (i.e. up to the age of 14), vocational training, secondary education, higher education. The base category is elementary education or below.

Educational level of head of household: a set of dummy variables, taking on the value of 1 depending on the head of household's level of educational attainment: elementary education or below, vocational training, secondary education, higher education. The base category is elementary education or below.

Educational level: a set of dummy variables, taking on the value of 1 depending on the level of educational attainment of the spouse of the head of household: education below secondary level, secondary education, higher education. The base category is education below secondary level.

Employee: A dummy, taking the value of 1 if the respondent works as an employee in March of the survey year, and 0 otherwise.

Ethnicity: Based on the judgement of the interviewer. A dummy, taking the value of 1 if the respondent is regarded to be Gypsy, in other words Romany, and 0 otherwise. [As noted already in chapter 1: 'This definition certainly does not discount those, who self-consciously claim their Gypsy origin, but it also includes those, who have already become strongly assimilated into other communities. Every experience indicates, that the non-gypsy communities are aware of the origins of even of the successfully assimilated gypsies.' (Kemeny et al. 1996, p. 3)]

Ethnicity of head of household: Based on the judgement of the interviewer. A dummy, taking the value of 1 if the head of household is regarded to be Gypsy, in other words Roma, and 0 otherwise.

Fatalism: aggregate score of responses to the following questions:

- I accomplish my decisions.
- I have little power over the course of my life.
- Only to a minor extent I am able to ease most of my problems.
- I often feel lonely.
- Nowadays I can hardly find my way in matters of life.

Fully agree: 4, partly agree: 3, partly disagree: 2, fully disagree: 1.

In the summation responses to the first question had been evaluated in a reverse way. The index is a continuous variable with scores from 6 to 23.

(The reliability of the summative index has been tested using Cronbach's alpha. The alpha value is 0.78, which is over the 0.7 reliability threshold. This means that the inter-item correlations are high enough to be able to use a summary index. In other words, we can assume that the six items of the index are all functions of a latent, theoretical construct – fatalism.)

Female: A dummy, taking the value of 1 if the respondent is female, and 0 if male

Household amenities: set of dummy variables, taking on the value of 1 depending on whether the household has the following items: HIFI, television, video, computer, washing machine, fridge, deep freezer, washing up machine, microwave, and house alarm

Housing ownership: a set of dummy variables, taking on the value of 1 depending on the housing ownership status of the individual: owner-occupier, tenant or other. The other category included for example those who use the flat illegally, who live in the flat in

exchange for long term care of an elderly person, or those who occupy the housing as friends or relatives. The base category is owner-occupier.

Housing problems: set of dummy variables, taking on the value of 1 if any of the following problems occur: dampness, fungi, darkness, air pollution, noise, dangerous neighbourhood, no separate entrance or other. If one problem occurs, then it is labelled as 'moderate', if two, then 'rather serious', if three, then 'serious'. The base category is 'no housing problems'.

Income quintiles: a set of dummy variables, taking on the value of 1 depending on which quintile the respondent belongs to based on his/her total equalised net household income. Equivalence scale: OECD, which gives a weight of one to the first adult, 0.7 to each additional adults and 0.5 to each child in the household. Base category: 3rd quintile (On the details of the income components of total household income, see Appendix C.)

Little contact with relatives or friends: A dummy, taking the value of 1 if the respondent lives in a household which meets relatives or friends less often than once a month or they never meet them, either as inviting them in the household's home or as visiting them in their own homes

Lives in Budapest: A dummy, taking the value of 1 if the respondent lives in the capital, and 0 otherwise.

Living space per person (ln): continuous variable. Natural logarithm of living space per person. The latter has been calculated as total living space of the housing in square meter as reported by the respondents, divided by the household size.

Marital status: a set of dummy variables, taking on the value of 1 depending on the respondent's marital status: married, divorced, widow/er, single. Base category is single.

Neighbourhood problems: set of dummy variables, taking on the value of 1 if the neighbourhood has air pollution, it is noisy, there is both air pollution and noise, the area is untidy or dangerous or there is a housing quality problem. The latter may include any of the following: dampness, fungi, darkness, no separate entrance or other. The base category is 'no neighbourhood problems'

No friends: a dummy variable, taking on the value of 1 if the respondent says that he/she has no friend with whom he/she could discuss personal matters (the survey questions asks about the number of such friends), and 0 otherwise.

Number of active earners in the household: a set of dummy variables, taking on the value of 1 depending on how many active earners are in the household: 1, 2 or more. The base category is none.

Number of children: a set of dummy variables, taking on the value of 1 depending on how many children the respondent has: none, 1, 2, 3 or more. The base category is none.

Number of pensioners in the household: a set of dummy variables, taking on the value of 1 depending on how many pensioners (other than disability pensioners) are in the household: 1, 2 or more. The base category is none.

Number of unemployed in the household: a set of dummy variables, taking on the value of 1 depending on how many unemployed are in the household: 1, 2 or more. The base category is none

Other inactive: All those who are not employed, pensioners or students. It thus includes all the inactive who are not recorded as students. A dummy, taking the value of 1 if the respondent is inactive and is not a student, and 0 otherwise.

Pensioner: Old-age, widowhood and other pensioners, excluding disability pensioners. Those pensioners who are employed were treated as part of the labour force, thus were excluded from this variable. A dummy, taking the value of 1 if the respondent is pensioner, and 0 otherwise.

Real income: real income of net equivalised household income, in 1992 prices. The equivalence scale used is that of the OECD, which assigns a weight of 1 to the first adult, then 0.7 to each additional adults, and 0.5 to each child in the household. (On the details of the income components of total household income, see Appendix C.)

Religious: A dummy, taking the value of 1 if the respondent attends religious service or church at least once a month, and 0 otherwise.

Savings: continuous variable, the natural logarithm of total household savings, either cash, bank account, bonds, foreign currency or other forms. For comparability, the original categorical variable in 1992 has been converted into a continuous one by using mean values in each category.

Self-employed: A dummy, taking the value of 1 if the respondent works as self-employed, and 0 otherwise.

Share of individual's income within household: continuous variable, based on the ratio of annual personal and total annual household income (On the components of these two measures of aggregate income, see Appendix C.)

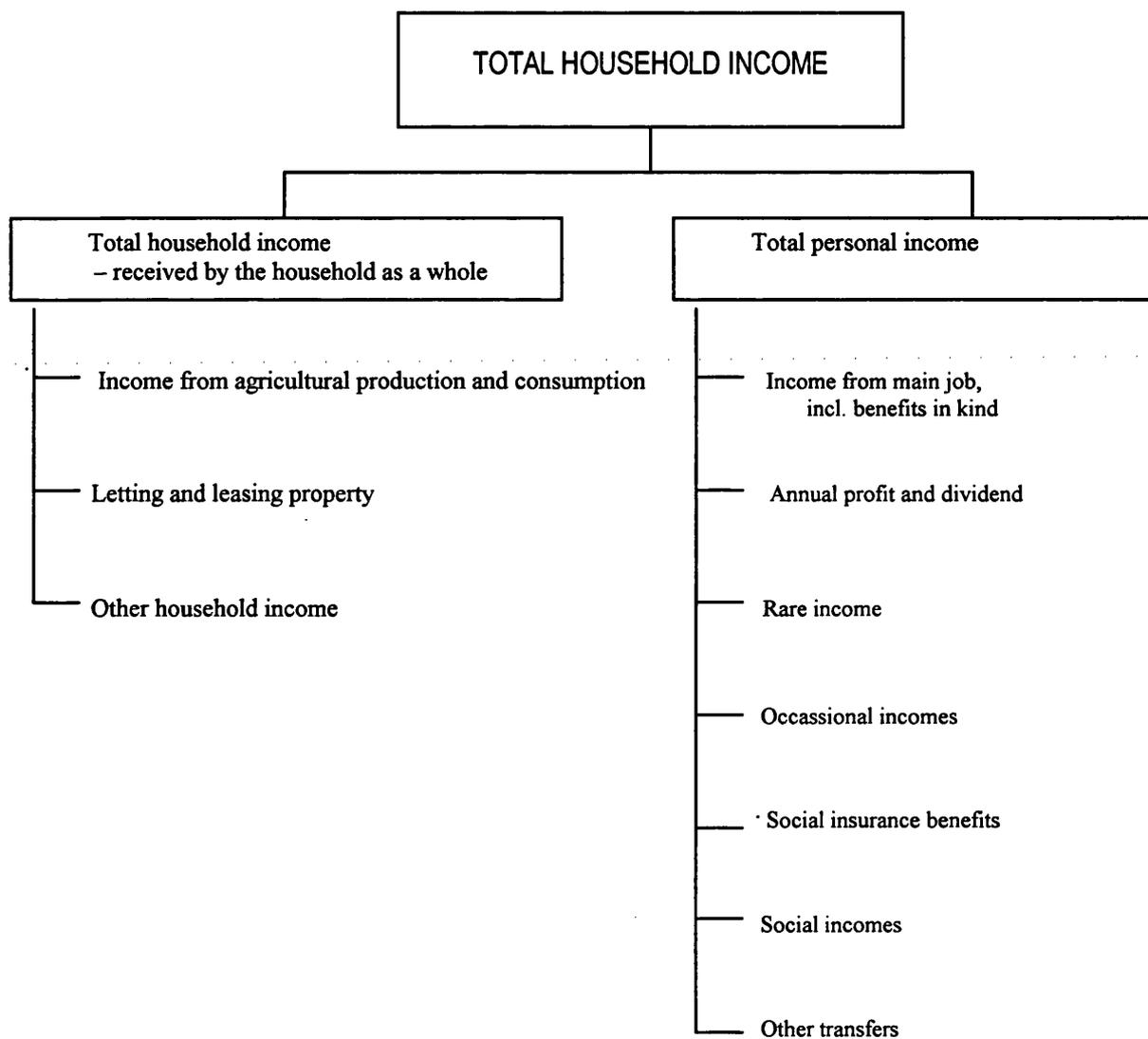
Student: A dummy, taking the value of 1 if the respondent is a student, and 0 otherwise.

Unemployed: ILO definition, those who are not working, are actively searching job and are available to work. Those who had worked in a family enterprise or business in the previous week are also excluded. A dummy, taking the value of 1 if the respondent is unemployed, and 0 otherwise.

Value of housing (ln): continuous variable, showing the natural logarithm of self-reported market value of housing. (The survey question asked about the possible sale price. In cases where the sale price variable was missing it was replaced by the 'value of housing' variable, which was also self-reported in the survey.)

APPENDIX C

COMPONENTS OF AGGREGATE INCOME VARIABLES



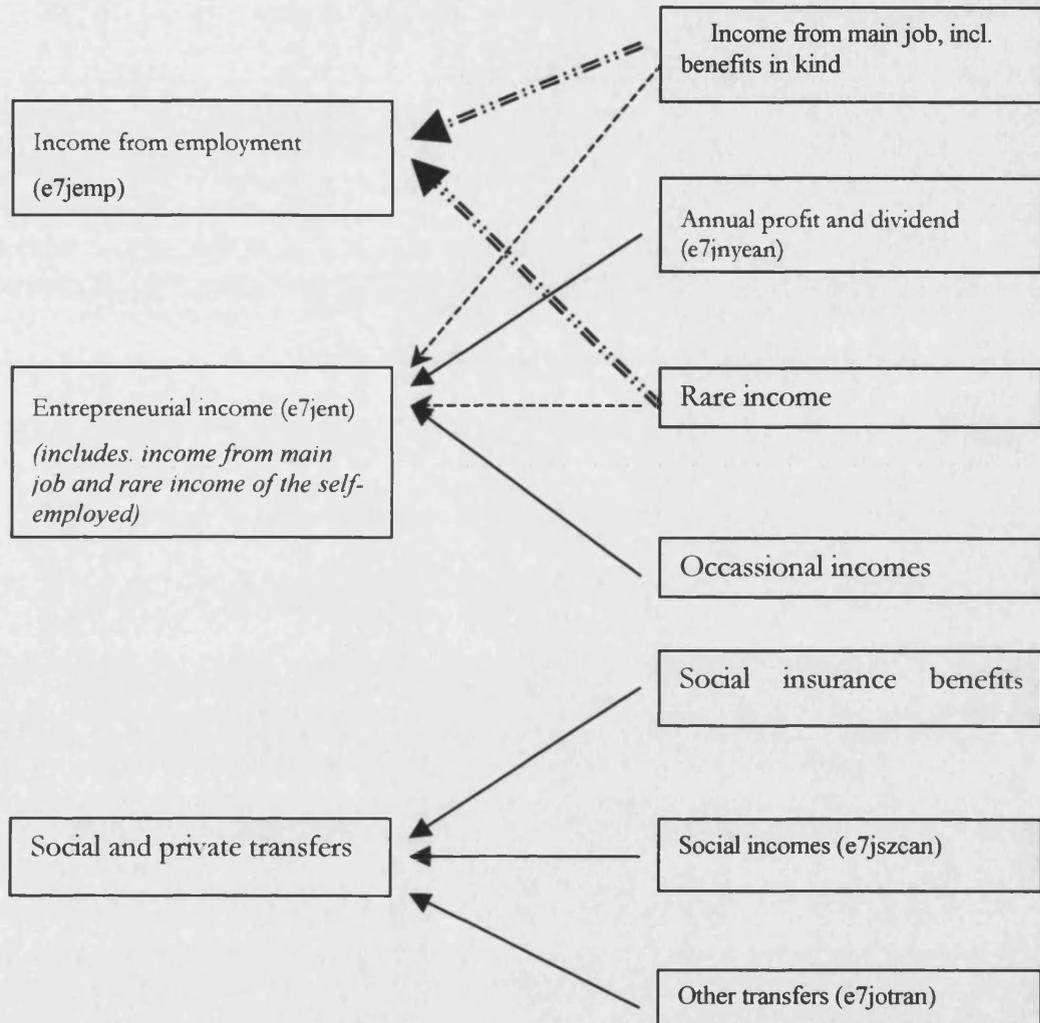
TOTAL HOUSEHOLD INCOME – RECEIVED BY THE HOUSEHOLD AS A WHOLE

1992 (h1jvosz)	1998 (h7jhhtot)
<p><i>Income from agricultural production and consumption (h1jmgosz)</i> Income from sales of agricultural products (h1jmgela= h1gaelap +h1gaelfp+ h1gnelap+ + h1gnelfp) Saving from consumption of own agricultural products (h1jmgta= h1gaelft+ h1gafogp +h1gnelft+ h1gnfogp)</p>	<p><i>Income from agricultural production and consumption (h7jagtot)</i> Livestock farming (h7gaelap + h7gaelfp +h7gaelft, +h7gafogp) Crop production (h7gnelap +h7gnelfp +h7gnelft +h7gnfogp)</p>
<p><i>Letting and leasing property (h1jkiad)</i> Flat (h1jlakk1) Room, bed (h1jalbk1) Cottage (h1jnyak1) Machinery, equipment (h1jgepk1) Land, agricultural property (h1jfolk1)</p>	<p><i>Letting and leasing property (h7jrent)</i> Flat (h7jlakk1) Room, bed (h7jalbk1) Cottage (h7jnyak1) Machinery, equipment (h7jgepk1) Land, agricultural property (h7jfolk1)</p>
<p><i>Other household income</i> Prize (h1jnyer1) Grant (h1jseg1) Cash support from non-household member (h1jtamo1) Compensation bonds (h1jkarp1)</p>	<p><i>Other household income</i> Prize (h7jnyer1) Grant (h7jseg1) Child support grant (tartasdj) (h7jtdjk1) Cash support from non-household member (h7jtamo1) Present (H7jajan1) Interest income (h7jinter)</p>

TOTAL PERSONAL INCOME (e1joszan, e7joszan)

<p><i>Income from main job, incl. benefits in kind (e1jmjan, e7jmjan)</i></p> <p>Income from main job (e1jmaian, e7jmaian) Overtime payment (e1jtotan, e7jtotan) Luncheon vouchers (e1jlunan, e7jlunan) In-kind benefits (car, petrol) (e1jcaran, e7jcaran) 1992: In-kind benefits (travel, flat, other) (e1jtrvan, e1jrenan, e1jcloan) 1998: In-kind benefits (travel, flat, other) (e7jbenan)</p>	<p><i>Alkalmazottak főmunkahelyi jövedelme</i></p> <p>Főmunkahelyi bér, kereset Túlóra Étkezési hozzájárulás Gépkocsi hozzájárulás, benzinpénz Utazás, albérlet és egyéb hozzájárulás Utazás, albérlet és egyéb hozzájárulás</p>
<p><i>Annual profit and dividend (e1jnyear, e7jnyear)</i></p> <p>Profit, dividend, and shares from enterprises (e1jvpenz, e7jvpenz) 1992: Profit, dividend, and shares from other enterprises (e7jvsump)</p>	<p><i>Vállalkozói jövedelmek</i></p> <p>Vállalkozás(ok)ból származó nyereség, osztalék, részesedés</p>
<p><i>Rare income (e1jritan, e7jritan)</i></p> <p>Bonus, premium (e1jpremp, e7jpremp) Daily travel allowance (e1jnapip, e7jnapip) Patent, copyright (e1jujtip, e7jujtip) Severance pay (e1fevegp, e7fevegp) Other rare income (e1jegyp, e7jegyp)</p>	<p><i>Főálláshoz kapcsolódó vagy egyéb ritka jövedelmek</i></p> <p>prémium, 13. havi fizetés, nyereségrészesedés napidíj újítási, találmányi díj végkielégítés egyéb ritkán előforduló jövedelem</p>
<p><i>Occasional incomes (e1jkulan, e7jkulan)</i></p> <p>part-time jobs (e1jkmuan, e7jkmuan) occasional unskilled jobs (e1jasman, e7jasman) occasional agricultural work (e1jmgan, e7jmgan) 1992: other occasional jobs (e1jaszan, e1jaeran, e1jataan, e1jafuan) 1998: other occasional jobs (e7jaegan) trading (e1jkeran, e7jkeran) dealer's fees (e1jjutan, e7jjutan) tins (e1ihoran, e7ihoran)</p>	<p><i>Rendszeres és alkalmi különmunka</i></p> <p>másod-, mellékállás, részfoglalkozású váll. alkalmi segédmunka alkalmi mezőgazdasági munka alkalmi szakmunka, alkalmi takarítás, gyermekmegőrzés, alkalmi fuvarozás egyéb alkalmi munka árusítás, kereskedelem jutalék, ügynöki munka, közvetítés horravaló hálanénz</p>
<p><i>Social insurance benefits (e1jsian, e7jsian)</i></p> <p>Sick pay (e1jsckan, e7jsckan) Unemployment benefit (e1jueman, e7jueman) Maternity allowance (e1jgyean, e7jgyean) Maternity benefit (e1jgysan, e7jgysan) Old-age pension (e1jpenan, e7jpenan) Disability pension (e1jdisan, e7jdisan) 1998: Orphan's benefit (e7joran) 1998: Widow(er) pension (e7jwidan) Other pension (e1jopean, e7jopean) Other transfers (e1jellan, e7jellan)</p>	<p><i>Társadalombiztosítási jövedelmek</i></p> <p>Táppénz Munkanélküli járadék GYED GYES Öregségi nyugdíj Rokkantsági nyugdíj Árvaellátás Özvegyi nyugdíj Egyéb nyugdíj Egyéb ellátás (anyasági segély, baleseti ell.)</p>
<p><i>Social incomes (e1jszcan, e7jszcan)</i></p> <p>Social assistance to long-term unemployed (e1juean, e7juean) Training grants to unemployed (e1jtraan, e7jtraan) Student grants (e1jgran, e7jgran) Child benefit (e1jchian, e7jchian) Local authority assistance (e1jassan, e7jassan) Special (emergency) payment (e1jspean, e7jspean) 1998: Child benefit (means-tested) (e7jcbán) 1998: Old-age means-tested benefit (e7joldan)</p>	<p><i>Szociális jövedelmek</i></p> <p>Munkanélküliek jövedelempótló támogatása Átképzési támogatás Ösztöndíj, zsold Családi pótlék Rendszeres szociális segély Rendkívüli és egyéb segély Gyermeknevelési támogatás (GYET) Időskori járadék</p>
<p><i>Other transfers (e1jotran, e7jotran)</i></p> <p>Income from private care contracts (e1jprian, e7jprian) Income transfers (e1jtaman, e7jtaman) Life insurance and compensation bonds (e1jinsan, e7jinsan) Insurance compensation (e1jbizan, e7jbizan)</p>	<p><i>Transzfer jövedelmek</i></p> <p>Életjáradék eltartási szerződésből Pénzbeni támogatás (háztartáson kívülről) Életjáradék biztosítótól, kárpótlásból Biztosításból származó egyéb jövedelem</p>

OTHER SUMMARY MEASURES OF INCOME



APPENDIX D

INCOME VARIABLES: MISSING DATA ANALYSIS AND IMPUTATION

The original dataset for 1992 did not use imputation for missing income variables. In contrast, the 1998 dataset did so. In order to achieve comparability, I have imputed income data for 1992. The method followed was the same as the one described by the data supplier research institute (TÁRKI). In addition to this, in order to filter potential mistakes in the imputation process itself for 1998, I did not use the derived variables of the institute, but made my own programme, following the detailed original one. Further to this, as a principle, I did not use any derived variables provided in the datasets. The summary income measures are also added up from detailed components of income, following the Hungarian conventions.

Missing data analysis

Household level variables

About half of the household level income variables are related to agricultural production, and ask about revenues from sales and savings due to production for own use. Other variables investigate revenues from lending various types of property, but also include grants and transfers. The first general investigation discovered that the coding of zero and missing values was to a great extent inconsistent. This had no major effect on the data analysis itself, but determined the method of further missing value analysis. The inspection also revealed that there is only a single category of missing data, no distinction is made between 'no response', denial of response or 'don't know' response.

The major goal of further missing data analysis was to diagnose whether the missing data process is random. For this, the observations for each variable were divided into two groups, observations with missing data and those with valid values. Due to the above mentioned confusion of zero and missing values, all variables with zero or missing values were classified as 'missing'. Statistical test was then performed to determine whether significant differences exist between the two groups on other variables of interest. If I found no significant difference between the means of valid observations and missing

values, then the missing data probably occurred randomly. (For more on missing data analysis, see Hair 1998).

The variables for the test had to be selected in a way that they did not have causal relationship with the income variables, otherwise I would inevitably detect the presence of a missing data pattern. For example using settlement types as a base of comparison for groups of missing and non missing observations of agricultural production income would show clear signs of bias, due to the higher occurrence of agricultural activities in farms and small villages. The choice of such independent variables is not simple. Gender, age and settlement type seem to be suitable, but not equally for all household income variables.

I used t-test for testing if the means are equal for each two groups of observations (with missing and non-missing data). For the sake of validity two types of variables were excluded from the test: those income variables which had small number of observations (2-4) in one of the groups, and those, where there was an expected causal relationship between the income and the other variable. As a first step, the means of the two gender groups were compared for each income variable in order to test if men and women are in the same proportions among those who have declared to have that type of income and those who have not. For the bulk of the variables the hypothesis that there is no difference between the two means was accepted at 95% confidence level, so there was no sign of a missing data pattern. In case of a few exceptions, it was possible to identify an apparent causality. These variables could have been excluded from the test provided I had more information at the start of the analysis. For example, women (more precisely, households where there is higher number of women) tend to keep animals and grow plants for own consumption more likely, which is probably a social phenomena rather than a non-desirable non-random missing data process.

T-tests based on age and settlement type variables showed that the missing data process is random for most income variables. One group of variables show significant and unexpected 'age bias', namely those who tend to receive and give money transfers and in-kind presents are younger (the younger have higher ratios of valid responses). One possible explanation is that children and young couples are more likely to receive such gifts from their parents (the average age is 28 and 32, respectively), for example as a support for buying a flat. This seems to be plausible, since the amounts of these transfers are often very

high. It is more difficult to explain why younger people (with average age of 36) tend to give more presents than others (42 years on average). Further investigation of the relationship between the head of households and these transfers reveals that records of such transfers are distorted. Much more people remember of giving presents and cash support for others than of receiving such help. This shows that the simple frequency analysis (which was the base of the t-test) may not be accurate. More detailed analysis referring to the amounts of such transfers shows that age groups between 35 and 55 are net receivers and those above 55 are net supporters. The same group of variables referring to transfers and presents appeared to show a non-random missing data for settlement types. It seems that those who live in towns and big cities tend to support their relatives more than those in villages. A detailed cross-tabulation revealed that the amount of transfers differs greatly as well. This may be explained by the fact that average incomes are higher in cities, thus simply those who have more tend to give more.

Individual level variables

The first general investigation found a few cases with obvious miscoding in case of child benefit. This benefit type allows crosschecks for the number of children in the family and the employee status of the individual, which makes it possible to identify data problems. Eleven observations of child benefit were modified, in two cases the amount of benefit was corrected (deleting one extra zero where it was an obvious typo), in nine cases the values were entirely deleted (for pensioners with no children under 18; by adding the condition 'pensioner' I could minimise the possibility that the number of children were actually entered incorrectly). I found 15 cases when non-pensioners (e.g. soldiers or mothers on maternity leave) were receiving old-age pensions. Since there is no further information for deciding whether the benefit variable or the employment status variable was miscoded, I could not correct this mistake. The recipients of unemployment benefits were not coded as unemployed in 66 cases. Similarly to the previous case, due to lack of adequate information the problem could not be corrected. Outliers for other types of income were not corrected, because I can assume that they show real cases.

The method applied for missing data analysis was similar to that of household level variables. First I separated two groups, dividing missing and valid responses, for each income variable. Then I tested the hypothesis if the means of these two groups are equal on independent variables. The specification of these variables had to exclude predictable

causal relationship between these and the income variables. Therefore e.g. I did not use age variable, because most work-related incomes, and benefits have clear age pattern. Similarly, the occurrences of child and maternity benefits were not compared in the two gender groups. All major income variables tested by t-test on gender and settlement type variables showed no signs of non-random missing data pattern.

Imputation method

The replacement of certain missing data is a well-known way of dealing with missing data. If we used observations with complete data only, it would distort our results, since due to the nature of certain income variables they occur only in a minority of the total cases. Another simple remedy for missing data would be to delete problematic cases. This method is not justified in this case for two reasons. First, we found no evidence of the occurrence of a major non-random missing data process. Second, it would harm the representativeness of the sample.

TÁRKI has used a simple method of imputation, called mean substitution, which is one of the more widely used methods. Mean substitution replaces the missing values for a variable with the mean value of that variable based on all valid responses. TÁRKI used a more refined version of this, first they divided all cases of the variable into subgroups based upon three other variables, and then replaced the missing value with the mean value of that variable in that specific subgroups. In this way for example missing income from main job was not substituted by simply the mean of all incomes from main job, but by the specific mean, which belongs to that educational level and settlement type.

The statistical literature identifies three major disadvantages of this method. First, it understates the true variance in the data, thus make the variance estimates derived the standard variance formulas invalid. Second, the actual distribution of values is distorted. Third, this method depresses the observed correlation because all missing data will have a single constant value (Hair 1998). Some of these disadvantages, however, occur in the case of other imputation methods, such as cold deck imputation or regression imputation. Hot deck imputation, also used in the British Household Panel Survey, is a better alternative to means imputation, since it lacks most of the unfavourable characteristics of the latter method. Hot deck imputation 'can be broadly defined as a method where an imputed value

is selected from an estimated distribution for each missing value, in contrast with mean imputation, where the mean of the distribution is substituted' (Little and Rubin 1987, p. 60). (For more on various methods, see Kalton 1983; Little and Rubin 1987; Rubin 1987; Groves and Couper 1998.)

Despite the obvious advantages of other methods I have decided to use the same method as TÁRKI did. The major reason for this is conceptual. The major focus of the current research is well-being and its comparison to income, for which it seems useful to use a well-known and already analysed basis. A major change in the imputation method could result in a significantly different income values and income distribution, which would divert the primary focus of the analysis towards explaining the income data themselves. Finally, the application of the most sophisticated techniques, such as multiple imputations (Rubin 1987) would have been rather time consuming.

Process of actual imputation

The imputation technique was mean substitution. As described before, it means that missing values of annual total income were replaced by relevant group means of valid cases. The group characteristics were identified on the basis of two criteria: (1) predictive power in determining incomes, and (2) availability (small number of missing cases). Thus employment status, educational level, age, region and gender have been selected as group identifiers, and the mean of total income in the specific subgroups have been used to estimate missing values for individuals in similar subgroups. In this way, each individual with missing income in the specific subgroup got one identical income estimate. The subgroups used as the base of imputation have been selected with special consideration to sample size, in order to ensure representativeness. If the sample size of the subgroup proved to be too small, then I used fewer group characteristics in order to get adequate group size and a representative mean figure.

This process, despite its drawbacks, is suitable to make estimates for overall incomes. However, it would be problematic to use it for replacement of missing income components, since in most cases there is no adequate information to decide whether the missing case is a denial of response or the individual simply did not receive that particular type of income. (Such distinction is possible for total income in most cases, based on responses to other questions and the inconsistency between the answers.) As a result of the

imputation method applied, income components may not add up to total income, and there is smaller number of 'valid' responses for income components than to total individual or household income.

Inconsistencies of total income due to missing components have been dealt with by deleting those total household income figures where at least one member had a 'problematic income' where no imputation was done.

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