

# What do citizens want? Well-being measurement and its importance for European social policy-making

**EPC Issue Paper No.59** 

December 2009

By Sotiria Theodoropoulou with Fabian Zuleeg





'Well-being 2030' is a new two-year research project which investigates the major trends and developments that will determine Europe's policy options for improving its citizens' quality of life by the year 2030. Based on a belief that policy can crucially shape our future, the project aims to stimulate a debate from which a strong vision for future social progress in Europe can emerge.

This forward-looking project will provide analysis and stimulate debate on the future of Europe's economic and social models, including such issues as:

- What kind of 'Social Europe' do citizens want?
- How can Europe's public sectors and services manage the sustainability challenges arising from demographic change, globalisation, climate change, the current economic crisis, inequalities and social exclusion?
- How can 'well-being' be measured?
- How can European policies contribute to improving social conditions?
- What choices are open to Europeans in shaping their future communities?

The project analyses the main policy areas that impact on these questions, especially those with a specific European policy interest. Rather than attempting to 'reinvent the wheel' it will begin by drawing together all the strands of the wealth of existing research. It does not aim to provide a 'forecast' of what the future holds, but rather to add value by highlighting major trends and developments and outlining what this implies for the choices open to us in the future.



With financial support from the European Commission



### **Table of Contents**

For	6	
by I	Hans Martens	
Exe	cutive Summary	7
Intr	roduction	9
I.	The changing context of social policies in Europe	11
II.	What do citizens want? Defining and measuring quality of life	14
III.	Life satisfaction and its determinants:	
	what do policy-makers know and what do they need to know?	19
IV.	Conclusions and recommendations	24
Annex		
End	Inotes	28

### About the authors

Sotiria Theodoropoulou is a Policy Analyst and Fabian Zuleeg is a Senior Policy Analyst at the European Policy Centre.

### Acknowledgements

We would like to thank Claire Dhéret and Joana Cruz for their assistance with data and research. This paper has also benefited from discussions we have had with the members of the project's Steering Group, namely Agnes Huber, Ralf Jacob, Bartek Lessaer, Robert Anderson, Katalin Nagy and Peter Van Kemseke. However, final responsibility for its content rests with the authors alone.



### **Foreword**

By Hans Martens

Europe – and the rest of the world – is in a process of reflection, with the financial and economic crisis leading many to question our current economic and social models and our focus on growth and consumption. The need to go 'beyond GDP' has been recognised by many, and sustainability – of business models and public finances, and in terms of social, environmental and economic development – is increasingly moving up the political agenda.

In Europe, we are rightly proud to have created societies which strive to ensure that no one is left behind and that healthcare, education and employment are available to all. But Europe will need to change to be able to deal with a range of major challenges.

The need to adapt to climate and demographic change, tackle the persistence of inequalities, address the challenges of migration and cohesion, and build more sustainable public finances, are all becoming increasingly pressing. At the same time, these changes also present opportunities for Europe's citizens, with, for example, technological progress enabling the delivery of better healthcare and the 'green' economy capable of providing more sustainable sources of growth and jobs.

This lies at the heart of the Well-being 2030 project, a joint European Policy Centre and European Commission initiative. We strongly believe that now is the time to determine what strategic options are available to create a 'social Europe' fit to deliver a high level of well-being for EU citizens in the future.

To be able to do this, it is important to know how we can measure well-being and what this tells us about how we should develop EU policy. This paper thus analyses the existing evidence and what the current measurements of well-being tell us, and considers what more needs to be done to give European policy-makers the data they need to make informed policy choices.

It highlights several priorities for action to increase the focus on well-being in policy-making. But this is not a good enough reason for Europe to drag its feet in refocusing policy to ensure that it has a sustainable economic and social model capable of meeting the EU's future challenges.

Hans Martens is Chief Executive of the European Policy Centre.



### **Executive summary**

Social policy in the EU is at a crossroads as the European economic and social model comes under pressure from globalisation, demographic ageing, the rise of the service economy and climate change. Europe's social agenda is currently being revised to address these challenges and the debate is underway on the follow-up to the Lisbon Strategy.

Surveys suggest that EU citizens do not expect their living conditions to improve in the future. This raises the question of what direction social policies should move in to increase their life satisfaction and well-being.

Some major international initiatives are already well under way to provoke reflection and debate on how social progress should be defined and measured. This publication aims to contribute to this ongoing debate by analysing the research to date from the European policy-makers' perspective.

The measurement of social progress has expanded beyond GDP to include other factors that contribute to 'quality of life'. There are a number of ways of measuring quality of life. This publication focuses on subjective well-being (people's 'sense' of well-being) and, more specifically, life satisfaction.

After reviewing some of the current research on the measurement of social progress, this paper identifies some factors associated with 'quality of life' that can be directly influenced by policy choices. These include income levels, employment (or unemployment), health, education and the environment, and coincide to a significant extent with the concerns voiced by citizens over the state of the economy in Eurobarometer surveys and the 2007 and 2009 European Citizens' Consultations.

The existing evidence also highlights some of the areas where policy-makers need to focus their efforts to increase citizens' life satisfaction:

- 1. *Income growth*: Although the results of the well-being research suggest pretty consistently that as countries and citizens get richer, people value other aspects of quality of life more, they also show that income is positively associated with citizens' satisfaction with other aspects of their life, for example healthcare.
- 2. *Health*: Even after taking differences in *per capita* income into account, health satisfaction a very important predictor of life satisfaction declines with age. As European societies grow older, more efforts to increase citizens' satisfaction with their health will be necessary.
- 3. Quality of work: This matters increasingly for job and life satisfaction, although its relative importance varies in different EU Member States. Citizens in richer countries (EU-15) tend to place more weight on how interesting their jobs are than those in the poorer new Member States, who generally attach more weight to how much they earn.
- 4. Differences in per capita income: These result in different relationships between income growth and life satisfaction, or between the characteristics of a job and work satisfaction, in different countries. In the enlarged EU, this can raise questions about how common priorities can be set in policy strategies such as the Lisbon Agenda.

Our review of the evidence suggests that there are ways in which the measurement of well-being and the analysis of existing indicators could be improved to provide policy-makers with better information about the policy choices they face. This publication highlights the following priorities for action:

1. European policy-makers need to know more about citizens' preferences regarding the trade-offs involved in meeting current and future challenges. This could be done by using surveys to not only ask citizens how important an aspect of a policy or life is, but also by posing questions that explicitly state the trade-offs and the constraints under which choices can be made, to reveal their priorities.



- 2. A clearer understanding of the nature of the association between life satisfaction and aspects of quality of life is needed. Policy-makers need to know whether such links are coincidental (spurious) or if one causes the other (causal) and if the latter, what is the cause and what is the effect. They also need to know what determines the balance between direct and indirect impacts on life satisfaction, and more about how social policy changes affect life satisfaction.
- 3. More data analysis on the determinants of life satisfaction for particular groups in society is required. Analyses of the determinants of life satisfaction at the country level investigate the association between nationally-averaged data on various aspects of life and life satisfaction. However, as averages mask the uneven distribution of resources among individuals and differences in circumstances, these analyses are likely to miss important differences in the determinants of life satisfaction in different groups in society.

It remains an open question whether more and better information would enable policy-makers to identify a single model and devise policies accordingly. The existing research on the definition and measurement of well-being provides some insights into citizens' preferences. However, these need to be investigated further in the light of the trade-offs and resource constraints facing European social policy-makers when deciding between policy options.

The credibility of the vision that can emerge from gathering and analysing this data for the future of Social Europe depends not only on improving the measurement and definition of aspects of well-being, but also on how they are weighted against each other.



# What do citizens want? Well-being measurement and its importance for European social policy-making

By Sotiria Theodoropoulou with Fabian Zuleeg

### **Introduction**

Social policy in the European Union is at a crossroads. Globalisation, technological progress and demographic developments are changing European societies. The usefulness, political viability and financial sustainability of European social policies in their current form have been questioned. As a consequence, the EU social policy agenda is currently being modernised. These changes call for a new social vision for the EU.

A number of policy initiatives are already under way to define this new social vision. The June 2006 European Council asked the European Commission to take stock of social realities. Following public consultations, a new EU social package was adopted in July 2008 including proposals in a wide range of policy areas, from employment and social affairs to youth and education, from health and the information society to economic affairs. This new agenda is part of the process of defining a new social vision.

Other EU policy developments will complement this process. The EU budget is currently under review to assess how future EU policies can meet the challenges of the next decades and beyond, and how the EU budget needs to be adapted to do this. The next stage of the Lisbon Strategy is also currently being debated.

What is less clear is what direction social policies should move in and what EU citizens need from European social policies in order to increase their life satisfaction.

Some major international initiatives are already well under way to provoke reflection and debate on how social progress should be defined and measured.

The Organisation for Economic Co-operation and Development (OECD) has been coordinating the work of national statistical services, academic experts, and public and private organisations, including the European Commission, within the Global Project on Measuring the Progress of Societies. One of the key decisions of the most recent international conference of the project in Korea was that the research on defining and measuring social progress should now aim at helping to define policy goals. In the same context, the European Commission recently launched a Communication¹ outlining a roadmap with five key short- to medium-term steps to be undertaken to improve the indicators of progress, address citizens' concerns, and make the most of new technical and political developments.

Moreover, in 2008 French President Nicolas Sarkozy appointed the Nobel laureates Joseph Stiglitz and Amartya Sen along with economist Jean-Paul Fitoussi to lead a working group to debate and redefine how economic performance and social progress should be measured to reflect the concerns of citizens more accurately.

This publication aims to contribute to this ongoing debate on how we should define and measure the well-being and progress of societies from the European policy-makers' perspective. It reviews the existing indicators of citizens' satisfaction with their lives and the factors considered to be determinants of 'quality of life'. It also assesses how much information these indicators give policy-makers to help address the challenges they face and decide between the policy options available to them. Finally, it provides some recommendations on what more could be done to give European policy-makers the information they need to optimise these policy choices.

This Issue Paper is published as part of the 'Well-Being 2030' joint research project recently launched by the European Policy Centre and the European Commission. This project is investigating the major trends and developments that will determine Europe's policy options for improving its citizens' quality of life by



the year 2030. One of its aims is to stimulate debate from which a strong vision for future social progress in Europe can emerge.

This paper therefore focuses on assessing the indicators of social progress from a European perspective and on the strategic choices available for future social policies. Given the apparent 'disconnect' between citizens' aspirations and policy strategies, it focuses in particular on what the research on social progress can tell European policy-makers about the determinants of citizens' life satisfaction – especially those that can be directly linked to policy inputs.

Chapter I analyses the policy challenges currently facing European policy-makers in the social policy arena. Chapter II provides an overview of the existing research on social progress. Chapter III takes a closer look at the information this research provides for policy-makers and considers what additional information they require. Chapter IV concludes and makes some recommendations for action.



## I. The changing context of social policies in Europe

# Long-term structural changes and trends...

European societies have become steadily more affluent since the early decades after World War II. Globalisation in general and European integration in particular – with freer movement of goods, capital, people and ideas – have driven productivity increases and industrial output growth in Western Europe, and acted as catalysts for transition in Eastern Europe, although previously stellar growth rates came to a halt in Western Europe from the early 1970s when the post-war reconstruction process reached a conclusion.

Over time, social policies made basic, state-funded education universal; introduced mass access to universities; and insured European citizens against various risks, from health to unemployment and old age. Increasing prosperity made the financing of these social policies feasible and, in turn, these policies served to increase prosperity still further.

Nowadays, European citizens live longer and are better educated. This has led to a number of changes in values, norms, consumption patterns and lifestyle. While unemployment, poverty and social exclusion have not been eradicated, European societies are generally much wealthier than they were in the decades immediately after the war. Globalisation and technological advancements have partly shaped and partly accelerated the consequences of these changes.

Affluence has led to the expansion of the services sector, which has become the main source of GDP growth and employment creation since the 1970s, at the expense of industry. Wealthier and better-educated consumers demanding more sophisticated goods and services have also driven the rise of the 'knowledge economy'.

Facilitated by the development of information and communications technologies, the rise of the services sector and the knowledge economy has created new forms of globalisation. Unlike the international trade in goods, knowledge-intensive services and ideas are traded around the world predominantly through foreign direct investment and the movement of people and service providers across borders. Terms such as 'outsourcing', 'offshoring' and the global 'war for talent' have entered the policy debate, creating new dilemmas.

Whereas in the first couple of decades of European integration, policies to enhance national competitiveness aimed at increasing net exports of goods, nowadays competitiveness involves the capacity to attract foreign capital and prevent outflows of domestic investment to other countries, while at the same time attracting appropriately skilled labour both at home and from abroad.

The rise of the services sector has also been associated with increased participation by women in the labour market. As female educational attainment rose everywhere in Europe, women's aspirations changed to include the pursuit of careers and personal fulfilment, in addition to – if not at the expense of – family life. Fertility rates have fallen in most European countries, with women generally having fewer children and later in life. This has contributed to a substantial ageing of the population, a trend which is expected to accelerate in the coming decades.

Sustained affluence has also raised awareness of issues of sustainability, particularly of natural and environmental resources.

### ...and the policy challenges they pose for the long term

These long-term trends have important implications for policies.

The rise of the services sector as the main source of job creation saw the end of high output growth rates in Western Europe. The productivity growth potential of services is inherently low or difficult to capture, so policy-makers in Europe have faced difficult choices in tackling high unemployment, avoiding a widening



of the earnings' gap and keeping public spending under control.<sup>2</sup> Concerns about climate change have also raised questions about the environmental sustainability of current models of economic growth.

Moreover, the rise of the knowledge economy has been associated with increasing polarisation in the labour market. The jobs created in the knowledge economy are either highly-paid, relatively secure and requiring high-end skills, or poorly-paid, somewhat precarious and requiring low-end skills.

As the educational attainment of European populations has been rising, labour-market polarisation implies that while there will a greater demand for skilled workers to fill the human and capital-intensive jobs of the future, there will also still be many labour-intensive, low-skilled jobs which do not require the levels of qualifications many possess.

For workers in the latter category, the returns on education will be lower than anticipated, and the low-skilled are also vulnerable to labour market exclusion. So while building the labour force's skills base is important to maximise the knowledge economy's potential and growth, policy-makers also have to find ways to combat polarisation.

The pace of technological advance and globalisation is also accentuating the pressures to adjust and update workers' skills, making lifelong learning ever more important.

One of the main consequences of demographic change and the ageing society is the resulting increase in the cost of healthcare. The sustainability of the pension systems in most European countries is also now in doubt. People live for much longer than they did when these systems were first set up, and the ratio of people of working age to pensioners is expected to reach 2:1 by 2050, down from 4:1 in 2004. Given that employment rates in the EU are on average below 70%, the real dependency ratio is in fact even lower.<sup>3</sup> Last but not least, productivity and output growth rates are lower than they were when European pension systems were established.

High and persistent unemployment in several European countries in the 1980s and the 1990s added to these pressures, as the pool of contributors shrunk and early retirement gained prominence as a way of taking more older workers out of the jobs market. The current economic crisis is likely to exacerbate this problem, both because of the projected slow pace of recovery, which means unemployment is likely to continue rising for some time, and because of the additional strain it has put on public finances. Potential solutions to the problem – extending the retirement age, curtailing welfare benefits and increasing contributions – have been politically difficult to implement.

The rise of the services sector as the main source of job creation and the increasing number of women in the labour force have also increased the prevalence of atypical forms of employment, such as part-time and fixed-term jobs. Although these more flexible employment contracts make it easier for women with children and younger people to participate in the labour market, they are also associated with a heightened risk of low incomes and poverty for the holders of such contracts.

Labour market policies therefore need to strike a balance between allowing for flexibility while at the same time providing some security for employees. The flexicurity principle that has been followed most notably in Denmark and the Netherlands, has become a key approach for the rest of the EU, and there is an ongoing debate about on how best to apply it and how it can be adapted to the needs and constraints of other Member States.

### What is at stake for the EU?

These challenges present European policy-makers with difficult choices in terms of (among others) the labour market, education, healthcare, pension and environmental policies.

These policies affect citizens' quality of life in a number of ways and the economic crisis has exacerbated the trade-offs facing policy-makers in addressing citizens' main concerns: unemployment has risen dramatically



and is likely to remain high during a weak recovery, while several years of painful adjustments will be needed in virtually all Member States to return to sustainable paths.

The economic interdependence of EU Member States calls for at least some coordinated action at – and leadership from – the EU level in order to deal more effectively and efficiently with these challenges.

There have also been growing signs that citizens are becoming disillusioned with the EU's capacity to make a difference in addressing their main concerns about social conditions, the economic situation and the environment. Voter turnout at the European elections has fallen to a record low and the rejection of EU treaties in countries that have traditionally been ardent supporters of European integration is seen by many as evidence of this disenchantment. The perception that European policies are having little impact on improving citizens' living standards has been cited as one of the main reasons for this.

Shaping a new strategic vision of a 'Social Europe' that 'speaks to' its citizens' aspirations of improved living standards will therefore be important for taking European integration further.

In the economic sphere, important steps are required to reap the full range of benefits that completing the Single Market could yield. In the political/institutional sphere, recent enlargements have created new challenges in ensuring the EU continues to function effectively. Decisive policy leaps forward require public support. In the 'good times', such as the late 1980s, this may not be as difficult to muster, as it is easier to devise policies that 'compensate' those who lose out as a result of reforms. However, under the current circumstances, the task is more difficult. This is why EU policy-makers need a clear understanding of what citizens want.



# II. What do citizens want? Defining and measuring quality of life

To deal effectively with these challenges, European policy-makers need to know what citizens want to increase their life satisfaction and maximise their well-being. Research on, and analysis of, indicators of social progress and their determinants, opinion surveys such as Eurobarometers, and public consultations such as the European Citizens' Consultations<sup>4</sup> are the main sources of information for this purpose.

In this section, we begin to assess this information from the European social policy-makers' perspective, starting with a basic overview of the research on social progress to measure well-being and the factors that have been identified as its determinants. Citizens' perceptions of their well-being and how satisfied they are with their lives are of particular interest in this context.

There are several surveys that measure 'life satisfaction'. A first test for evaluating the information available to policy-makers is whether there is consistency in the way this is measured. We will then review which aspects of life are commonly identified as determinants of 'quality of life' and well-being in the research on social progress. We will also examine whether those issues identified by researchers as most important are also high among citizens' concerns, as illustrated in Eurobarometer surveys and the results of the European Citizens' Consultations.

### Indicators of social progress: from GDP to the quality of life

In the early post-World War II decades of reconstruction, GDP was used as the measure of social development. Although it is a fairly comprehensive indicator, which also allows for cross-country comparisons, it also has a number of shortcomings, not least because it is an average that masks any inequalities in the way it is shared out. Moreover, from the 1960s onwards, the issue of whether the growth pattern of developed countries was sustainable also entered the debate on how social progress should be measured.

In response to these criticisms, researchers began considering using alternative indicators of output derived from the system of national accounts,<sup>5</sup> and thinking about ways in which this system could be expanded to include information on aspects of life that were not hitherto included, such as the environment.

However, it was also understood that citizens' well-being also depends on issues beyond their command of economic resources – and that growth may come at the expense of other aspects of life that had not previously been taken into account.

The focus of research on social progress thus shifted from GDP to defining, measuring and attempting to explain a broader set of factors deemed to affect the well-being of individuals in societies, which together have been termed 'quality of life'. Research on social progress has also begun taking the well-being of future generations into account by examining sustainability issues.

This research grew rapidly from the 1990s onwards and has produced indicators of people's (subjective) sense of well-being through surveys in which respondents are asked to evaluate their level of well-being.

There are various ways in which researchers measure subjective well-being. Respondents may be asked to evaluate how happy or satisfied they are with their lives. It has been suggested<sup>6</sup> that a full account of subjective well-being should include both life satisfaction – that is, a person's overall judgement about his or her life at a particular point in time after weighing up various factors, which is a cognitive evaluation; and the presence of positive feelings and the absence of negative feelings, both of which are emotional evaluations based on how people feel at a given moment.<sup>7</sup>

More recent research<sup>8</sup> has suggested that the definition of subjective well-being should go beyond measuring life satisfaction and the presence or absence of positive or negative feelings. More specifically, it has been argued that the social and mental capital of individuals has to be taken into account as well. (See Figure 1 in Annex for a sample of these indicators.)



The first relates to the strength of an individual's relationships with others; the second to how well people are doing in terms of realising their potential in different aspects of their lives, for which psychological resources such as resilience (i.e. their capacity to deal with life's difficulties) are important.

However, this publication focuses on life satisfaction as a measure of subjective well-being. This is the one indicator for which data have been collected across many countries and has therefore been used most widely in research and analyses of well-being and its determinants. It has also been found to correlate strongly and positively with other, more complex aspects of subjective well-being, such as autonomy (i.e. feeling free to do what one wants and having the time to do it) and resilience.<sup>10</sup>

Also, as we are interested in evaluating this information from the perspective of European social policy-makers, we are more interested in indicators of life satisfaction than those measuring positive or negative feelings, as the former are more likely to be affected by policy inputs.

EB 2003	EQLS 2003	EB 2007	<b>EQLS 2007</b>
DK	DK	DK	DK
FI	SE	SE	NL
SE	NL	FI	SE
IE	FI	LU	FI
LU	UK	NL	LU
AT	LU	IE	UK
ES	IE	MT	BE
NL	BE	BE	IE
BE	ES	ES	ES
MT	AT	FR	AT
UK	FR	UK	SI
DE	IT	DE	FR
IT	DE	SI	CY
CY	EE	CY	DE
SI	PT	AT	MT
FR	BG	PL	CZ
EL	CZ	EE	EE
CZ	EL	SK	PL
PL	CY	CZ	IT
RO	LV	EL	SK
PT	LT	IT	EL
EE	HU	RO	LV
HU	MT	LT	LT
SK	PL	PT	PT
LV	RO	LV	HU
LT	SI	HU	RO
BG	SK	BG	BG

Spearman's Rank Correlation Indexation= 0.94

Source: EB 60 and 68; European Quality of Life Survey reports, 2003 and 2007

Spearman's Rank Correlation Index= 0.77



There is, however, a potential problem with using life satisfaction as a measure of subjective well-being because it depends largely on an individual's aspirations: improvements in living standards might only lead to temporary increases in life satisfaction as they also increase aspirations – a process known to psychologists as 'adaptation'.

Adaptation implies that as societies progress, citizens' quality of life begins to depend on a wider range of factors. For policy-makers, this means that the definition and measurement of well-being should be expanded to include other aspects of life that determine life satisfaction beyond income.

Surveys providing data on life satisfaction include the World Values Survey, the Gallup World Poll, Eurobarometers and, occasionally, the European Social Survey. (See Figures 2a and 2b in Annex for some examples.) As an example, the above table compares the ranking of EU Member States according to the average life satisfaction indicators in Eurobarometer and the European Quality of Life surveys produced in 2003 and 2007. There are strong correlations between the results of the two surveys and this improved between 2003 and 2007 from 0.77 to 0.94, suggesting that the life satisfaction data in the two surveys is reliable.

### The determinants of quality of life

The research on quality of life is not limited to determining how happy or satisfied citizens are with their lives, but also focuses on what aspects of their lives shape their perceptions and how to measure these aspects.

The debate on this question is ongoing and different approaches have been developed. However, despite the variety of approaches, a number of factors have been consistently highlighted as important for shaping citizens' sense of well-being.

Table 2. Factors related to subjective well-being					
Research programme	Factors directly affected by policy	Factors not directly affected by policy			
European Quality of Life Survey (1)	Income, living standards, deprivation; work-life balance; health and healthcare; quality of society (i.e. of public services); housing and the local environment	Family life (i.e. distribution of gender roles within the family)			
OECD – Society at a Glance (2)	Self-sufficiency (employment, unemployment, mothers in paid employment, jobless households, student performance, NUTS, age of labour force exit, childcare costs, childcare); equity (income inequality, poverty, poverty among children, income of older people, low-paid employment, gender wage gaps, material deprivation, poverty persistence, intergenerational mobility, housing costs); healt (life expectancy, health-adjusted life expectancy health status, infant mortality, low birth weight, obesity, height, mental health, potential years of life lost, disability-free life expectancy, accidents, sickness-related absences from work, health inequalities); social cohesion (the impact of crime)	Í h			



The Quality of Life Index – EIU 3)	Material well-being (GDP <i>per capita</i> ); health; political stability & security; job security (i.e. unemployment); political freedom; gender equality (earnings)	Family life (divorce rate); community life (church attendance rate; trade union membership); climate		
EurLIFE – Euro- foundation (4)	Health; employment; income deprivation; education; housing environment; transport; safety	Social participation; leisure		
European Social Survey Survey (5)		Values; attitudes		
New Economics Foundation – National Well-Being Accounts (6)	Life circumstances: income, level of education. Type of main activity: paid work, education, unemployment, long-term illness, retirement, looking after home.  Time use and leisure activities: number of hours worked	Life circumstances: gender, age, belonging to a minority ethnic group, living with a partner, living with children, disadvantage due to illness/disability, living in rural area. Attitudes: fear of crime, trust in institutions, intrinsic values. Time use and leisure activities: time spent watching TV, volunteering, helping others, attending local activities, taking part in religious activities		
Commission on the Measurement of Economic Performance and Social Progress (Stiglitz-Sen-Fitoussi) (7)	Health; education; personal activities (e.g. paid work, housing); political voice and governance; environmental conditions	Personal activities (e.g. unpaid domestic work, leisure); social connections (i.e. social capital)		
Economics research	Income; relative income; employment/unemployment			
OECD – Global Project (8)	Physical and mental health; knowledge and understanding; work; material well-being; freedom and self-determination	Interpersonal relationships		
Sources: (1) Eurofound, European Survey of the Quality of Life Survey. (2) OECD, (2009) Society at a Glance, Paris. (3) EIU, The Quality of Life Index, London. (4) Database available at www.eurofound.europa.eu/areas/qualityoflife/eurlife/index.php#Employment (5) Database available at www.europeansocialsurvey.org				

New Economics Foundation, (2009) National Accounts of Well-Being: Bringing Wealth onto the Balance

E. Giovannini, J. Hall, A. Morrone, and G. Ranuzzi, (2009) 'A Framework to Measure Progress in

(7) J. Stiglitz, A. Sen, and J.-P, Fitoussi, (2009) Report by the Commission on the Measurement of Economic

Performance and Social Progress, Paris. Available at www.stiglitz-sen-fitoussi.fr

Societies', Draft OECD Working Paper, September. www.oecd.org/dataoecd/40/46/43631612.pdf

Sheet, London.



The table above lists these factors and a sample of research programmes that measure and/or analyse them. It also distinguishes between the aspects of life that are associated with subjective well-being, for which a relatively straightforward link to policy input can be established, and those where the link with policy inputs is more indirect. The latter include factors such as cultural norms, values, family structures and community life, among others.

This distinction is by no means intended to suggest that the measurement of these aspects of life is not important for policy-makers, or that they are unaffected by policy inputs. On the contrary, these factors 'condition' the impact of policy inputs on subjective well-being. However, in order to evaluate the information that well-being measurement provides for policy choices, it is useful to distinguish between those aspects of quality of life that are directly affected by policy inputs and those that are not.

The measures that pertain to the aspects of life listed in the table differ depending on the research programme's approach to defining quality of life (e.g. subjective well-being, capabilities approach, welfare economics/fair allocations approach). Some of the measures are objective (e.g. level of expenditure on health, healthy life expectancy, educational attainment, etc.), while others are subjective (e.g. satisfaction with health systems, education, etc.).

Do these aspects of life correspond to the policy areas that appear to be of most concern to citizens, judging from European public opinion polls and citizens' consultations?

In the European Citizens' Consultations of 2007 and 2009, the topics citizens focused on in more than twothirds of the national consultations included pension and healthcare systems, declining living standards and the growing exclusion of the socially disadvantaged; the economic and financial crisis; energy security and the ways in which energy consumption can be compatible with environmental sustainability.

Eurobarometer has also regularly asked EU citizens what they think are the top issues facing their country. Concerns such as the economic situation, inflation and unemployment and the quality of the healthcare system are consistently among the issues mentioned most frequently.

At first glance, therefore, the aspects of life that the research has linked with well-being are indeed the ones which are important for European citizens.



# III. Life satisfaction and its determinants: what do policy-makers know and what do they need to know?

European social policy-makers need to know to what extent the aspects of life deemed to be directly influenced by policy inputs actually affect the well-being of citizens.

So what do we know about the connections between life satisfaction and its assumed determinants that are directly affected by policy inputs? Do the results of the research point to any actual associations? If so, are these associations coincidental (spurious) or does one cause the other (causal)? If the latter, do the determinants result in greater or lesser life satisfaction or the other way around? And does the research provide clear insights into the choices facing policy-makers to address the challenges highlighted earlier in this paper?

The following section reviews the evidence for each determinant of quality of life.

#### Income

Levels of *per capita* income (absolute and relative) are among the factors linked to subjective well-being which have been studied most. This has been investigated from several perspectives, including whether individuals with high incomes at a given point in time and place are happier than those with low incomes; whether an increase in income over time increases happiness; and whether people in rich countries are happier than those in poor countries.

On average, richer people report higher subjective levels of well-being than poorer people at a given time and place, with a statistically significant correlation between the two. Some research has also indicated that higher income actually results in greater happiness.<sup>12</sup>

However, the World Values Survey also indicates that the positive link between income and happiness is stronger among poorer than among richer people. It has been suggested that it is the relative – rather than the absolute – level of income that matters<sup>13</sup> for people's life satisfaction.

The evidence on whether *increases* in incomes are associated with higher subjective well-being over time is rather inconclusive, if not contradictory. Large increases in *per capita* incomes in Western countries do not result in any changes in life satisfaction (the so-called 'Easterlin paradox'). A potential explanation for this phenomenon is a psychological mechanism known as 'adaptation'. Psychologists argue that happiness is determined by the gap between aspirations and achievement: achieving higher incomes eventually raises people's aspirations, and the higher their aspirations, the less a given income increase adds to their life satisfaction. In other words, increases in income have only transitory effects on happiness.

An individual's aspirations are also determined by comparisons between his or her situation and a reference point. If people use the average *per capita* income in their country as a reference point, income rises are more strongly associated with increases in life satisfaction among those on below-average incomes.

Lastly, the available evidence suggests that people living in richer countries are on average happier than people living in poorer countries. Here again, the positive association seems to level out above a certain threshold of income *per capita* in the country concerned. Unlike the link between income and happiness at a given time and place, however, there is no evidence on which direction cause and effect run in this association across countries. 15

It should be noted here that the apparently weaker association between income and life satisfaction for higher earners does not mean that income is not important for subjective well-being. What it really suggests is that the richer people become, the more other aspects of quality of life gain in relative importance. Such factors include health satisfaction, job satisfaction and education, which in turn are affected by income levels, as we shall see below.



In policy terms, this means that while people on higher incomes are generally happier, raising everyone's income does not increase everyone's happiness to the same extent or indeed in the same way.

Moreover, the research reviewed only refers to the impact of income levels and not to its variability over an individual's lifetime. Big changes in income, due to factors such as unemployment, illness and old-age, can be associated with heightened economic insecurity, which in turn is linked to stress and anxiety, as well as making investment decisions on issues such as education and housing which are even more constrained than usual by concerns over whether they will be affordable in the long run.

From the policy-makers' perspective, three questions arise:

- Can sustained income growth be achieved without jeopardising other aspects of the quality of life and, if so, how?
- If income growth is sustained, how can its impact on citizens' life satisfaction be maximised, given that its effect varies depending on people's earnings relative to others?
- What is the trade-off, if any, between income growth and the increased income variability which could result from more flexible labour markets?

To answer these questions, it is crucial to know the level above which increases in income have diminishing (if any) returns in terms of life satisfaction and how income shapes satisfaction with other aspects of well-being: does income growth always add to satisfaction with other important aspects of life (e.g. health, work) or are there trade-offs?

Moreover, if what matters for the citizens in a society is how their income and living standards compare with reference levels, is it valid to use quality of life indicators that measure societal averages in order to make policy choices?

### **Employment/unemployment**

The link between employment and citizens' life satisfaction/happiness has also received particular attention in the well-being research. As an important source of income, employment contributes to individuals' (material) self-sufficiency. It can also allow individuals to socialise, develop a sense of belonging and raise their self-esteem, although this depends on how good their working conditions are.

Employment also impacts on the amount of time people have to fulfil other roles in their life (e.g. family responsibilities) and to pursue other interests. The impact of employment on one's life satisfaction may thus also depend on the so-called 'work-life' balance that it permits.

The elements that shape working conditions and work-life balance are therefore likely to impact on how satisfied individuals are with their work – and with their life more generally. The relative weight of each element in determining work and life satisfaction also depends on the importance individuals attach to work as compared with other factors that influence life satisfaction.

The evidence on the importance of the quality of work for life satisfaction is mixed. Some studies have shown that having a good job is an important predictor of life satisfaction in most EU Member States, <sup>16</sup> while others have suggested that what really matters for life satisfaction is not the specific characteristics of the job but rather whether an individual has a job or not. <sup>17</sup> Analysis of the first European Quality of Life Survey results has suggested that job security and adequate pay are not only strongly and positively associated with job satisfaction in the EU, but also with life satisfaction.

The existing research provides strong indications that job satisfaction influences life satisfaction in the EU. (See Figure 3 in Annex for a ranking of European countries in terms of job satisfaction.) On average, 91% of the respondents to an EU survey said having a good job was important for having a good life. This share rose to 97% in the new Member States, while it was lower in the EU-15.<sup>18</sup>



The research also suggests that job satisfaction is a more important predictor of life satisfaction in the EU-15 than it is in the new Member States, where standards of living play a much more important role in this respect. <sup>19</sup> One explanation that has been offered for this discrepancy is that it depends on a country's level of economic development, and hence the relative weight individuals attach to factors other than the mere fact of having a job. <sup>20</sup> In the wealthier EU-15 countries, citizens seem to value work more for the identity they derive from it, while in the less wealthy Member States, it is the income derived from work that matters most. The findings of the first EQLS also support this view. <sup>21</sup>

In a similar vein, the first EQLS suggested that job security increases job satisfaction in general and that job satisfaction appears to increase life satisfaction across countries.<sup>22</sup>

The association between work-life balance and life satisfaction generally seems to be rather weak across the EU. Yet there are important differences: in the less affluent regions of Europe, work and time pressures appear to be more weakly linked to life satisfaction than in wealthier countries. These disparities most likely signal differences in the extent to which work-life balance matters for life satisfaction in each country, differences in policy measures and even in the amount of time individuals devote to work and to other responsibilities.<sup>23</sup> Interestingly, work-life balance is only weakly correlated with job satisfaction across countries.

Given the importance of employment as a source of identity, social relations and self-esteem, especially in the wealthier EU countries, unemployment involves much more than financial costs in terms of its impact on subjective well-being. Economic research has produced some fairly solid evidence that self-proclaimed happiness is much lower among the unemployed than among those in work with similar characteristics, even after taking other determinants of happiness such as income and education into account.<sup>24</sup> Analysis of the first EQLS suggests similar effects.

Other research findings also suggest that, on average, unemployment is more negatively associated with men's happiness than women's; with those in the middle of their working lives than younger or elder workers; and with the more highly educated than of those with lower education levels.<sup>25</sup> There is also evidence to suggest that unemployment leads to greater unhappiness rather than that unhappy people are more likely to be unemployed.<sup>26</sup>

The challenges facing policy-makers in the employment arena include the creation of jobs at a sufficient rate to maintain high levels of job security,<sup>27</sup> at adequate wage rates and with a content that matches the capabilities of an ever-more educated European workforce. The existing evidence on the role of employment in life satisfaction suggests that different aspects of work weigh differently on life satisfaction in different countries. In the lower-income eastern EU Member States, having a job seems to be the most important determinant.

### Health

All the research programmes have emphasised health as important for determining quality of life. However, the nature of the association between life satisfaction and objective indicators of citizens' state of health and subjective indicators (e.g. satisfaction with one's health and with the national health system) is less clear.

Using data from the Gallup's World Poll survey, Angus Deaton<sup>28</sup> showed that people's satisfaction with their health is positively associated with their satisfaction with life, even after controlling for income growth, life expectancy and changes in life expectancy. In fact, the impact of these factors on life satisfaction all but disappears when health satisfaction is taken into account. While there seems to be a strong correlation between the two, it is again less clear whether individuals' satisfaction with their health makes them more satisfied with life generally or whether those who are more satisfied with their life are also more satisfied with their health.

Mr Deaton also explored the links between health satisfaction and, among other things, changes in life expectancy, satisfaction with national health systems, age, and *per capita* GDP and its growth.



Interestingly, there does not seem to be a strong association between increases in life expectancy between 1990 and 2005 and health satisfaction once increases in *per capita* output are taken into account. On the other hand, there seems to be a positive correlation between health satisfaction and satisfaction with national health systems.

Moreover, Mr Deaton found that, on average, people in high-income countries are more satisfied with their health. Health satisfaction also seems to decline with age – and more steeply in low- and middle-income countries than in high-income ones.

This evidence confirms that health is indeed a very important determinant of life satisfaction. Yet exactly how it is connected is less clear, as is the correlation between health satisfaction and objective measures of citizens' state of health, such as life expectancy.

### **Education**

Education can contribute to a person's subjective well-being in a variety of ways. It not only endows individuals with skills that allow them to find employment and earn an income, but it is also important in its own right for quality of life. This is because education generally expands people's freedom and opportunities, regardless of their earnings or their country's wealth.

Research has suggested that the highly-educated report higher levels of subjective well-being beyond the effect of any higher income associated with higher educational attainment. Moreover, there is robust evidence from studies on the US, the UK and Ireland that education leads to greater life satisfaction rather than the other way round.

Education is also positively associated with better health, which is an important determinant of well-being, although evidence on whether education makes people more satisfied with their health or the other way round is thinner in this respect.

### **Environment**

Environmental conditions usually enter the debate over measuring citizens' well-being in relation to the issue of sustainability; i.e. whether the ways in which modern societies have been pursuing progress is sustainable with regards to natural resources. However, the quality of the environment also has immediate effects on people's well-being in a number of ways:

- the quality of air and water can affect their health;
- local environmental amenities, such as the availability of clean water, determine where people choose to live and this in turn can impinge on how they spend their time (e.g. commuting to work);
- climate change and natural disasters (e.g. flooding) can affect their property and lives.

Despite this, very little has been done to measure these effects on subjective well-being. The complexity of the channels through which the environment can shape well-being is one reason why this is so difficult. Scientific research to specify these effects is also still 'work in progress', complicated by the fact that impacts are spread over long periods of time. However, what is notable from a policy-makers' perspective is that although the environment features high up in the debate on the measurement of well-being, there is very little (if any) systematic knowledge about the extent to which it affects people's well-being/life satisfaction.

### Some general considerations

This review of the existing research raises a number of common and interconnected questions.

First, analysis of the impact of different aspects of quality of life on life satisfaction for the citizens of a country typically relies on country averages. These averages do not provide any information about



inequalities in people's experiences,<sup>29</sup> both with regard to their life satisfaction and to the aspects of life that shape it. More data are therefore needed, especially to understand how different aspects of life impact on overall life satisfaction.

Second, the research into the links between subjective well-being and aspects of quality of life does not take into account any connections between the effects of the latter on the former. For example, it is not clear what impact better health but less income, or more income but worse health, would have on life satisfaction. It is also likely that a combination of poor health and low income may reduce life satisfaction by far more than the 'sum of their individual effects'.

We therefore need to know more about the joint impact of different aspects of life on people's well-being. This further underlines the need for more data and analysis at the level of the individual, as mentioned above. This is also important from the policy-makers' perspective, given that the social policy challenges they face involve trade-offs between addressing different aspects of quality of life (see Chapter I).

The issue of how different aspects of quality of life add up to shape citizens' well-being is also linked to the question of whether there are one or more ways of reaching a given level of aggregate well-being in a society. Is it possible that citizens in different societies experience similar levels of life satisfaction which result from different combinations of aspects of quality of life?



### IV. Conclusions and recommendations

Surveys suggest that European citizens do not expect their living standards to improve in the future. As the EU redefines its social agenda and prepares the follow-up to the Lisbon Strategy, two questions emerge: can policy-makers offer a credible vision to address the challenges which lie ahead in enhancing citizens' well-being in the long run, and what kind of vision is required – in other words, what do citizens want?

In this paper, we have reviewed a sample of the existing evidence available to policy-makers to provide some answers to the second of these questions. A number of international initiatives have been launched to consider how best to define and measure social progress and citizens' well-being, and its determinants. This paper has sought to evaluate the evidence provided by this research from the European social policy-makers' perspective.

Policy-makers face difficult choices in addressing the challenges that demographic change, the rise of the service economy, technological progress and globalisation pose for the European economic and social model(s), and their capacity to improve citizens' well-being.

Do the current approaches towards measuring citizens' quality of life provide policy-makers with sufficient information on citizens' aspirations to make the right choices: i.e. what exactly do they need to know and what does the information which is already available suggest in terms of future policy directions?

Our review of the evidence suggests that there are ways in which the measurement of well-being and the analysis of existing indicators could be improved to provide policy-makers with better information about the policy choices they face.

### **Priorities for action**

We propose the following priorities for action:

1. European policy-makers need to know more about citizens' preferences regarding the trade-offs involved in meeting the challenges of demographic change, technological progress, the growing role of the services sector in Europe's economy, and globalisation.

There is evidence of interactions among aspects of quality of life in shaping citizens' life satisfaction, but there is not much evidence on how different policy choices involving different combinations of trade-offs would affect citizens' life satisfaction. Probably the best way to gauge such preferences in terms of policy trade-offs would be to use surveys to find out what citizens think. However, we need to go beyond simply asking citizens how important an aspect of a policy or life is: questions that explicitly state the trade-offs and the constraints under which choices can be made are more likely to reveal what citizens really want.

2. A clearer understanding of the nature of the association between life satisfaction and aspects of quality of life is needed.

As our sampling of the existing evidence suggests, the various aspects of quality of life which have been measured can be directly and/or indirectly associated with life satisfaction. For example, income is associated both directly with life satisfaction and indirectly through health satisfaction. We need to know whether these associations are coincidental (spurious) or if one causes the other (causal) – and if the latter, what is the cause and what is the effect. We also need to know what determines the balance between direct and indirect impacts on life satisfaction. Last but not least, we need to know more about how social policy changes affect life satisfaction.

3. More data analysis on the determinants of life satisfaction for particular groups in society is required.

Analyses of the determinants of life satisfaction at the country level investigate the association between nationally-averaged data on various aspects of life and life satisfaction. However, as averages mask the



uneven distribution of resources among individuals and differences in circumstances, these analyses are likely to miss important differences in the determinants of life satisfaction in different groups in society.

### Key issues to address

The existing evidence also highlights some of the areas where policy-makers need to focus their efforts to increase citizens' life satisfaction.

The first of these is income growth. The recent high-profile initiatives on how well-being should be defined and measured 'beyond GDP' – in an attempt to redefine 'what really matters' (other than income) for social progress – have captured the news' headlines. The results of the well-being research suggest fairly consistently that as countries and citizens get richer, people value other aspects of quality of life more. However, the research also shows a positive association between income and citizens' satisfaction with other aspects of their life, for example healthcare.

This is a second area that warrants special attention. Even after taking differences in *per capita* income into account, health satisfaction – a very important predictor of life satisfaction – declines with age. As European societies grow older, more efforts to increase citizens' satisfaction with their health will be necessary.

The quality of jobs also matters increasingly for job and life satisfaction. The determinants of this vary in relative importance in different groups of EU Member States. Citizens in richer countries (EU-15) tend to attach more value to the 'meaning' that their jobs give their lives, whereas those in poorer countries (the new Member States) value their jobs mostly for the income they provide.

Finally, differences in *per capita* income result in different relationships between income and life satisfaction, or between the characteristics of a job and work satisfaction, in different countries. In the enlarged EU, this can raise questions about how common objectives can be set in policy strategies such as the Lisbon Agenda.

### Putting citizens at the centre of the policy-making agenda

Speaking at the launch of the Well-being 2030 project in October 2009, European Commission President José Manuel Barroso underlined the need for policy-makers to have a better understanding of what makes for collective well-being in order to "choose the right strategy for the future".

He added: "The solutions to today's challenges must come from society if they are to meet people's needs. Citizens have to be at the centre of the agenda."

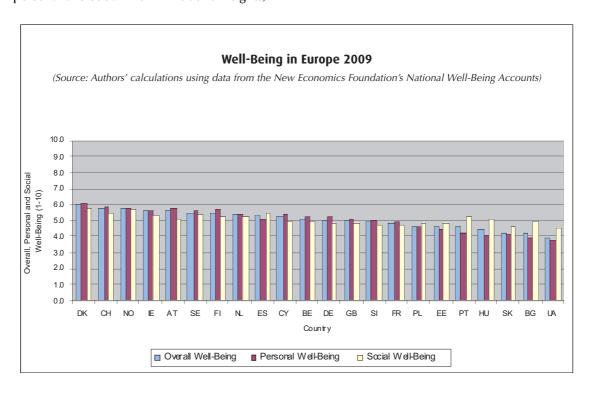
Taking the steps outlined above to give policy-makers more and better information about subjective well-being would help to put them there, and to ensure that right strategy and policy options are chosen.

However, the gaps in the information which is already available are not a good enough reason for Europe to drag its feet in refocusing policy to ensure that the EU has a sustainable economic and social model capable of meeting the challenges it will face in the future.

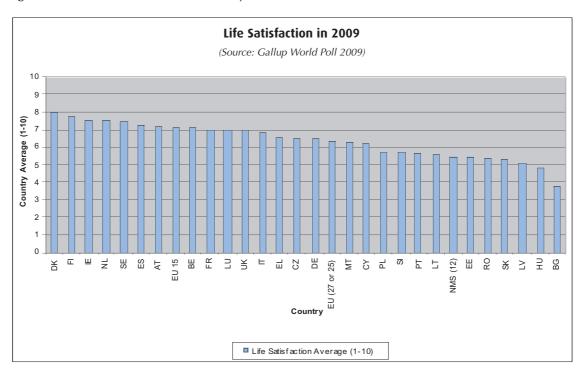


### **Annex**

Figure 1: Different aspects of well-being: personal, social and overall (weighted average between personal and social with 2:1 relative weights)



Figures 2a and 2b: Life Satisfaction Surveys





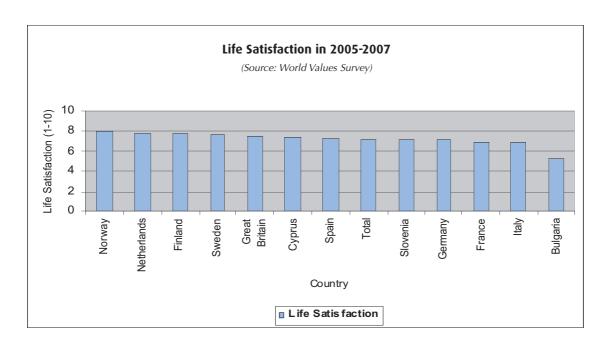
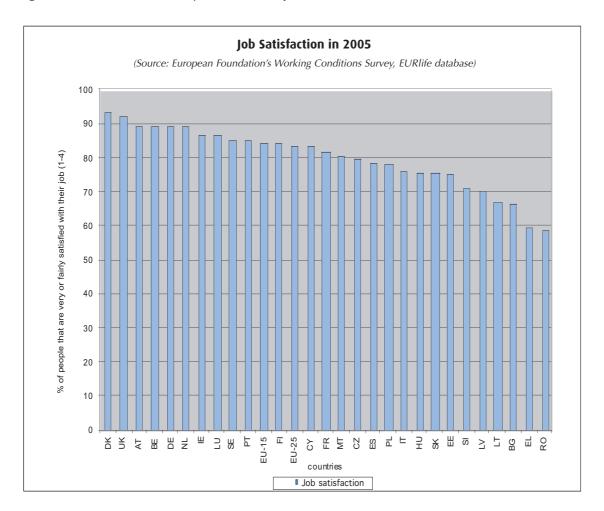


Figure 3: Job Satisfaction survey results in Europe





### **Endnotes**

- 1. European Commission, (2009) 'GDP and Beyond: Measuring Progress in a Changing World', Communication from the Commission to the Council and the European Parliament, Brussels, COM(2009) 433 final.
- 2. See T. Iversen and A. Wren (1998), Employment, Equality and Budgetary Restraint: The Trilemma of the Service Economy, World Politics, 50, pp.507-46
- 3. F. Zuleeg (2007) How to Grow Old without Going Bust: the Need for Efficient EU Labour Markets, EPC Policy Brief, November.
- 4. There have been two European Citizens' Consultations so far (in 2007 and currently in 2009) unique pan-European debates on the future of the EU involving citizens from all 27 EU Member States. The aim of these consultations was to promote interaction between citizens and policy-makers, feed citizens' views into the policy debate, increase public participation in policy-making and increase public interest in EU policies. For more information, visit www.european-citizens-consultations.eu
- 5. National accounts broadly present the production, income and expenditure activities of the economic actors (corporations, government, households) in an economy, including their relations with other countries' economies and their wealth. It has been argued that GDP is too focused on production, while the consumption capacity of households is more likely to provide a better measure of citizens' well-being. Moreover, if we want to take into account the sustainability of current well-being, the depletion of capital (physical, natural) should be taken into account. For this purpose, 'net' as opposed to 'gross' measures of resources are better.
- 6. E. Diener (1984) 'Subjective Well-Being', Psychological Bulletin, Vol.95, No.3, pp.542-75.
- 7. In the rest of the paper, the terms 'life satisfaction' and 'happiness' will be used interchangeably, that is, happiness will not be considered as an 'affective' state
- 8. J. Michaelson, S. Abdallah, N. Steuer, S. Thompson, and N. Marks, (2009) National Accounts of Well-Being: Bringing Real Wealth onto the Balance Sheet, London: New Economics Foundation, June 2009.
- 9. Ibid., p.3.
- 10. Ibid., p.11.
- 11. The subjective well-being approach to measuring quality of life has already been discussed (life satisfaction, presence of positive and absence of negative feelings). According to the capabilities' approach, a person's life is a combination of 'doings and beings' and of the person's freedom to choose among those 'functionings' (capabilities) (see Stiglitz-Sen-Fitoussi report). The 'fair allocations' approach, inspired by welfare economics, weighs the various non-monetary dimensions of quality of life taking into account people's preferences.
- 12. J. Gardner and A. Oswald, 2001 Does Money Buy Happiness? A Longitudinal Study Using Data on Windfalls, mimeo, U. Warwick.
- 13. A. E. Clark, P. Fritjers and M. A. Shields, (2008) 'Relative Income, Happiness and Utility: An Explanation for the Easterlin Paradox and Other Puzzles', *Journal of Economic Literature*, Vol.46, No.1, pp.95-144.
- 14. See E. Diener, M. Diener and C. Diener, (1995) 'Factors predicting the subjective well-being of nations', *Journal of Personality Social Psychology*, Vol. 69, No.5, pp.851-64 and R. F. Inglehart, (1990) *Culture Shift in Advanced Industrial Society*, Princeton, Princeton University Press.
- 15. B. S. Frey and A. Stutzer, (2002) 'What Can Economists Learn from Happiness Research?', Journal of Economic Literature, Vol.XL, pp.402-35.
- 16. J. Delhey, European Foundation for the Improvement of Living and Working Conditions, (2004) Life Satisfaction in an Enlarged Europe, Luxembourg, Office for Official Publications of the European Communities; P. Boehnke, European Foundation for the Improvement of Living and Working Conditions, (2005). First European Quality of Life Survey: Life Satisfaction, happiness and sense of belonging, Luxembourg, Office for Official Publications of the European Communities.
- 17. B. Frey and A. Stutzer, (2005) 'Happiness Research: State and Prospects', *Review of Social Economy*, LX11, pp.207-28; B. Kapitany, K. Kovaks and H. Krieger, European Foundation for the Improvement of Living and Working Conditions, (2005) *Working and Living in an Enlarged Europe*, Luxembourg, Office for Official Publications of the European Communities.
- 18. J. Delhey (2004).
- 19. P. Boenke (2005).
- 20. J. Delhey, (2004), R.F. Inglehart (1990).
- 21 See Eurofound, (2007) First European Quality of Life Survey: Quality of Work and Life Satisfaction, Luxembourg, Office for the Official Publications of the European Communities.
- 22. Ibid.
- 23. Ibid.
- 24. See B. Frey and A. Stutzer (2005).
- 25. Eurofound (2007).
- 26. B. Frey and A. Stutzer (2005).
- 27. Job security here should be distinguished from job stability. The former refers to the probability that a worker remains employed over time, even in different jobs. The latter refers to the probability that a worker remains employed by the same employer over time.
- 28. A. Deaton, (2008) 'Income, Health and Well-Being Around the World: Evidence from the Gallup World Poll', Journal of Economic Perspectives, Vol.22, No 2.
- 29. J. Stiglitz, A. Sen, and J.-P. Fitoussi, (2009) Report by the Commission on the Measurement of Economic Performance and Social Progress, Paris, available at www.stiglitz-sen-fitoussi.fr