This article is part of the Eurostat online publication Quality of life indicators, providing recent statistics on the quality of life in the European Union (EU). The publication presents a detailed analysis of many different dimensions of quality of life, complementing the indicator traditionally used as the measure of economic and social development, gross domestic product (GDP).

The present article is a general introduction to the set of '8+1' statistical articles (see below), sketching the conceptual, policy and methodological background: what is quality of life and how can its different aspects be measured adequately?

**The need for measurement beyond GDP**

Quality of life is a broad concept that encompasses a number of different dimensions (by which we understand the elements or factors making up a complete entity, that can be measured through a set of subdimensions with an associated number of indicators for each). It encompasses both objective factors (e.g. command of material resources, health, work status, living conditions and many others) and the subjective perception one has of them. The latter depends significantly on citizens' priorities and needs. Measuring quality of life for different populations and countries in a comparable manner is a complex task, and a scoreboard of indicators covering a number of relevant dimensions is needed for this purpose.

National accounts aggregates have become an important indicator of the economic performance and living standards of our societies. This is because they allow direct comparisons to be made easily. Gross Domestic Product GDP, one of these aggregates, is the most common measure of the economic activity of a region or a country at a given time; many decision and policy makers use it as the standard benchmark, often basing their decisions or recommendations on it. It includes all final goods and services an economy produces and provides a snapshot of its performance. GDP is very useful for measuring market production (expressed in money units). However, although it was not intended as an indicator of social progress, it has been considered to be closely linked to the well-being of citizens. The following are a number of reasons why GDP is not sufficient for this purpose, and therefore needs to be complemented by other indicators.

**Other measures of income reflect better households’ situations**

While GDP is very useful for measuring market production and providing an indicative snapshot of an economy at a given time, it does not provide a comprehensive picture of how well-off the citizens of a society are. As described in the J. Stiglitz, A. Sen and J.P. Fitoussi Report (Measurement of Economic Performance and Social Progress - 2009) citizens’ material living standards are better monitored by using measures of household income and consumption. Stiglitz, Sen and Fitoussi argue that the income of a country’s citizens is ‘clearly more relevant for measuring the well-being of citizens’ than domestic production.

In many cases, household incomes may develop differently from real GDP and therefore provide a different

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picture of this aspect of citizens’ well-being. As shown in Figure 1, for the period 2005–2012, GDP (in real terms) in the euro area reached its peak during the first quarter of 2008 and plunged to a record low almost a year later, in the second quarter of 2009. This sharp decrease reflects the beginning of the financial crisis. The decrease is however not reflected in citizens’ income during the first years of the crisis. On the contrary, households’ gross disposable income for the same period (the first quarter of 2008 to the second quarter of 2009) seemed to slightly increase. One of the reasons for this apparent inconsistency is that social transfers (social security benefits, reimbursements etc.) seem to have absorbed and softened the effect of the crisis (at least during the first few years).

Increasing GDP today, depleting resources for tomorrow

Social, environmental and economic progress does not always go hand in hand with an increase in GDP. For example, if a country decides to cut down all its forests, it will dramatically increase its timber exports, thus increasing its GDP. If GDP were the only indicator of quality of life, this would mean that the population of this country would have greatly improved its well-being. However, the deforestation would have a significant impact on the population’s quality of life in the mid and long term: loss of natural habitat, soil erosion and more. GDP definitely measures quantity, but not necessarily other aspects of production (such as distribution and potential impacts for the future).

GDP is an aggregate measure ...

... and as such cannot inform us about wealth distribution amongst the population

Even if 'quantity' were the only relevant measure of economic performance and quality of life, GDP would still not tell us the whole story about living standards. A significant increase in a society’s average GDP does not automatically translate into better living standards for most of its citizens. The increase could benefit only a small part of society, leaving many groups of citizens at the same level in terms of wealth, or even worse off than before. Consequently, overall measures of economic and social well-being must also include distribution indicators in order to provide a more realistic picture of the living standards and quality of life of a society’s citizens. GDP and other economic measures need to be complemented ...

... with indicators covering other important domains in order to measure well-being
Moving beyond economic performance, a more comprehensive, wide-ranging approach is needed when trying to define and measure quality of life. While it remains very difficult to provide an overall definition with specific measurable indicators, quality of life definitely includes more than just economic production and GDP figures. It should also be stressed that some of the indicators that will be included in this scoreboard are subjective. They therefore reflect the perceptions of individuals, their own assessment of different aspects of life and overall quality of life. This type of data can only be obtained through surveys.

Different examples throughout Europe show that GDP does not always go hand in hand with other indicators that contribute to a better quality of life. Luxembourg had by far the highest GDP per capita in 2011 (68 100 PPS), but this is partially due to the high percentage of cross-border commuters in its workforce, who contribute to GDP production but are not accounted for when calculating the per capita figures. Luxembourg was followed by the Netherlands (32 700 PPS), Ireland (32 600 PPS) and Austria (32 400 PPS). At the other end of the spectrum, Bulgaria has the lowest GDP per capita (11 600 PPS), followed by Romania (11 800 PPS) and Latvia (14 700 PPS). While Estonia’s GDP per capita is below the EU average (16 900 PPS, compared to the EU-28 average of 25 100 PPS) it has the highest percentage of well educated women (college or university education). Italy and Spain’s GDP per capita approximately matches the EU average, but they rank first in life expectancy (82.8 and 82.4 years respectively) throughout the EU. Germany has one of the highest GDP per capita figures in Europe (30 300 PPS), but it also has one of the widest gender pay gaps (22.2% in 2011). These are only a few examples that demonstrate the need to complement GDP and other economic indicators with a wider range of data, in order to be able to get a broader picture.

Map 1: GDP per capita in PPS, 2011
Source: Eurostat (namaauxgph)
Framework for measuring quality of life

Following the publication of the Stiglitz, Sen and Fitoussi report (2009), there is a growing consensus that societies need to find information to complement that provided by GDP figures. This includes information in a much larger context. The European Statistical System quickly reacted to the report by setting up The Sponsorship Group on Measuring Progress, Well-Being and Sustainable Development. It presented its final report in November 2011. The report stressed the need for the European Statistical System to use a multidimensional approach when defining and trying to measure quality of life, to develop indicators measuring sustainability and to use complementary indicators coming from National Accounts that would better reflect the situation of households. An Expert Group coordinated by Eurostat with the mandate of developing a scoreboard of quality of life indicators was set up on basis of this recommendation.

Discussions on how to better measure the progress of societies and their well-being and how to sustain quality of life in the future, have led to several important initiatives, including: the 'Beyond GDP' conference (2007), the Stiglitz/Sen/Fitoussi (SSF) Commission (2009), the Eurostat Feasibility study for Well-Being Indicators (2008) and the European Commission ‘GDP and beyond’ communication (2009). The European Statistical System Committee (ESSC) set up a Sponsorship Group (SpG) on Measuring Progress, Well-being and Sustainable Development, which was dedicated to develop specific and concrete sets of indicators that answer the challenges described in the ‘GDP and Beyond’ Communication and the SSF report. Other international organizations, in particular the OECD, have also devoted major efforts to the development of this field, especially within their Better Life initiative: Measuring Well-being and Progress.

8+1 dimensions of quality of life

A first set of indicators has been published and work is still on-going to fill in the gaps and possibly make recommendations for new indicators to be collected within this framework.

Based on academic research and several initiatives, the following 8+1 dimensions/domains have been defined as an overarching framework for the measurement of well-being. Ideally, they should be considered simultaneously, because of potential trade-offs between them:

- Material living conditions (income, consumption and material conditions)
- Productive or main activity
- Health
- Education
- Leisure and social interactions
- Economic and physical safety
- Governance and basic rights
- Natural and living environment
- Overall experience of life

Material living conditions

Material living standards are measured on the basis of three sub-dimensions: income, consumption and material conditions (deprivation and housing). Income is an important indicator as it has an impact on most of the other indicators in the framework. There are several different indicators within this sub dimension, taken from both national accounts and household surveys (net national income, household disposable income). The same is true for consumption, within which some aggregated indicators are taken from national accounts (household consumption per capita, total consumption per capita), and other indicators for households are taken from the Household Budget Survey. Material conditions (deprivation and housing) provide important complementary information to these money-based approaches.

Productive or main activity

A number of activities fill up citizens’ lives every day, the most prominent one being their work. Indicators
measuring both the quantity and the quality of jobs available (working hours, balancing work and non-working life, safety and ethics of employment) are some of the indicators used in Europe to measure this aspect of quality of life.

**Health**

Health is an essential part of the quality of life of citizens. Poor health can affect the general progress of society. Physical and/or mental problems also have a very detrimental effect on subjective well-being. Health conditions in Europe are mainly measured using objective health outcome indicators such as life expectancy, infant mortality, the number of healthy life years, but also more subjective indicators, such as access to healthcare and self-evaluation of one’s health.

**Education**

In our knowledge-based economies, education plays a pivotal role in the lives of citizens and is an important factor in determining how far they progress in life. Levels of education can determine the job an individual will have. Individuals with limited skills and competences are usually excluded from a wide range of jobs and sometimes even miss out on opportunities to achieve valued goals within society. They also have fewer prospects for economic prosperity. In Europe, currently available indicators of education that are relevant for quality of life are a population’s educational attainment, the number of early school leavers, self-assessed and assessed skills and participation in life-long learning.

**Leisure and social interactions**

The power of networks and social connections should not be underestimated when trying to measure the well-being of an individual, as they directly influence life satisfaction. In Europe, this is measured in terms of how often citizens spend time with people at sporting or cultural events or if they volunteer for different types of organisations. In addition, the potential to receive social support and the frequency of social contacts are indicators included in the framework under this dimension.

**Economic and physical safety**

Security is a crucial aspect of citizens’ lives. Being able to plan ahead and overcome any sudden deterioration in their economic and wider environment has an impact on their quality of life. Safety is measured in terms of physical safety (e.g. the number of homicides per country) and economic safety. For the latter, wealth indicators should ideally be used, but for the moment there is no comparable data on the topic for all European countries. The ability to face unexpected expenses and having or not having arrears are therefore used as proxy variables. The crisis has shown how important economic safety is for the quality of life of Europeans.

**Governance and basic rights**

The right to get involved in public debates and influence the shaping of public policies is an important aspect of quality of life. Moreover, providing the right legislative guarantees for citizens is a fundamental aspect of democratic societies. Good governance depends on the participation of citizens in public and political life (for example, involvement in political parties, trade unions etc.). It is reflected also in the level of trust of citizens in the country’s institutions, satisfaction with public services and the lack of discrimination. Gender discrimination measured in terms of the unadjusted pay gap is the only indicator included in this sub-dimension at the moment, but more indicators will be developed in the future.

**Natural and living environment**

The protection of the environment has been very high on the European agenda over the last few decades. The vast majority of European citizens believe that protecting the environment is important. Exposure to air, water and noise pollution can have a direct impact on the health of individuals and the economic prosperity of societies. Environment-related indicators are very important for assessing quality of life in Europe and in general. Both subjective (individuals’ own perceptions) and objective (the amount of pollutants present in the air) indicators are included.

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2 «Attitudes of European citizens towards the environment» – Special Eurobarometer 365, June 2011
Overall experience of life

Overall assessment of one’s life is measured using three sub-dimensions: life satisfaction (cognitive appreciation), affection (a person’s feelings or emotional states, both positive and negative, typically measured with reference to a particular point in time) and eudaemonics (a sense of having meaning and purpose in one’s life, or good psychological functioning). This is in line with the OECD guidelines on Measuring Subjective Well-Being. These indicators are currently being collected within the 2013 EU-SILC Ad-Hoc Module and will be available in 2015.

Conclusion

As highlighted above, it remains difficult to measure the quality of life of (European) citizens but preliminary results show it is worth going beyond GDP figures. A multidimensional approach is necessary to get a more comprehensive view of quality of life and avoid any misleading conclusions.

Source data for tables and graphs

- QoL- Measuring Quality of Life

Data sources

The collection of microdata on well-being is a key objective. Following Eurostat’s proposal to collect microdata on well-being within the 2013 module of SILC, data for subjective indicators will start to be collected as European statistics on a regular basis. In the long term, while data for several of the required indicators are readily available from other sources (e.g. LFS for the Productive or Main Activity dimension), EU-SILC should be further developed to serve as the core EU instrument connecting the different dimensions of quality of life on an individual level and reflecting their dynamic interdependencies. In order to make the system of indicators less complex and to allow for analysis covering the 8+1 dimensions of quality of life, a very limited number of headline indicators will be selected for each dimension, while synthetic indicators will be developed for highly correlated variables. A scoreboard of uncorrelated primary indicators should complete the picture.

- All articles on household income, expenditure and debt
- All articles on poverty and social exclusion
- Quality of life indicators (online publication)
- The EU in the world - living conditions

Publications

- European social statistics - edition 2013
- Income and living conditions in Europe - 2010 edition
- Report by the Commission on the Measurement of Economic Performance and Social Progress - Stiglitz J. E. et alii, 2009 (PDF)
- Sigma – The Bulletin of European Statistics – GDP & Beyond
- Sustainable development in the European Union - 2011 monitoring report of the EU sustainable development strategy (executive summary in 22 languages)
Dedicated section

- Quality of Life Indicators

Legislation

- Regulation 62/2012 of 24 January 2012 concerning Community statistics on income and living conditions (EU-SILC) as regards the 2013 list of target secondary variables on well-being

External links

- Expert Group on Quality of Life indicators
- OECD Better Life initiative: Measuring Well-being and Progress
- Third European Quality of Life Survey - Quality of life in Europe: Impacts of the crisis