

# Measuring well-being and progress

## Looking beyond GDP

### SUMMARY

Gross domestic product (GDP), a measure of national economic production, has come to be used as a general measure of well-being and progress in society, and as a key indicator in deciding a wide range of public policies. However GDP does not properly take into account non-economic factors such as social issues and the environment. In the aftermath of the economic and financial crisis, the European Union (EU) needs reliable, transparent and convincing measures for evaluating progress.

Indicators of social aspects that play a large role in determining citizens' well-being are increasingly being used to supplement economic measures. Health, education and social relationships play a large role in determining citizens' well-being. Subjective evaluations of well-being can also be used as a measure of progress. Moreover, changes in the environment caused by economic activities (in particular depletion of non-renewable resources and increased greenhouse gas emissions) need to be evaluated so as to ensure that today's development is sustainable for future generations.

The EU and its Member States, as well as international bodies, have a role in ensuring that we have accurate, useful and credible ways of measuring well-being and assessing progress in our societies.



### In this briefing:

- Background
- Objective social indicators
- Subjective well-being
- Environment and sustainability
- EU and international context
- Further reading

## Background

### The limits of GDP

Gross domestic product (GDP) measures the market value of all final goods and services produced within a country's borders in a given period, such as a year.<sup>1</sup> It provides a simple and easily communicated monetary value that can be calculated from current market prices and that can be used to make comparisons between different countries. Since the 1930s, GDP has become the most widely used measure of economic performance.

As a purely economic measure, GDP has weaknesses. A 'gross' measure, it does not account for depreciation in the capital used in production. It does not count non-market activities such as family care, volunteering or transactions in the informal market. It does not cover the accumulation of wealth as different forms of physical, financial or human capital, nor does it reflect changes in the quality of goods or services. GDP per capita is also an arithmetic mean which [masks inequalities](#) within society: the figure may rise at the same time income is falling for many, or even most, households.

Arguably, however, the most telling problem with GDP is that it has come to be used for purposes for which it was not intended – namely as a measure of a country's quality of life or general welfare, and hence as a means of evaluating a wide range of non-economic policies. Aspects essential to good quality of life such as health, social relations and personal security are not measured in GDP. The consumption of finite natural resources and the degradation in the environment caused by economic activities is also not reflected in its calculation. Indeed, as has often been pointed out, GDP may present in a positive light, situations that are negative in terms of well-being. For example, traffic jams result in increased GDP through the production and sale of more petrol, yet do not deliver any benefit to society, and indeed may damage the environment and quality of life by increasing emissions.

The financial and economic crisis has underlined the need for better measurement on which to base policies. High rates of growth in GDP before the crisis largely [masked](#) unsustainable increases in indebtedness relative to income and wealth. At least some [economists](#) believe that with better metrics, there might have been less euphoria in the period leading up to the crisis. Accurate measurement of quality of life has also taken on greater importance because of mounting [dissatisfaction](#) among the general population with official statistics that do not seem to reflect the reality that citizens see in their daily life. In 2009, [46%](#) of Europeans tended not to trust official statistics, and in 2010, a survey of citizens in twelve countries, including four large EU Member States (MS), showed [wide support](#) for using health, social and environmental indicators, as well as economic ones, to measure a nation's progress (results that were similar to those of [2007](#) and [2011](#) Eurobarometer polls).

### Replace, adjust or supplement

The advantages of GDP (particularly that it provides a single, easily communicated monetary value) mean that it would be extremely difficult to replace. Some economists have tried to improve on GDP as a measure of well-being with [indicators](#) such as the Measure of Economic Welfare or the Genuine Progress Indicator. These start with an economic value such as GDP or personal consumption and then adjust, by adding in monetary values of non-market activities that contribute to welfare such as unpaid

household work, volunteering, illegal economic production and leisure time; and then by subtracting the costs of factors such as environmental degradation, natural resource depletion, crime, debt and the inequality in distribution of wealth and income.

In general however, experts have favoured an alternative approach, namely measures and dimensions that will *supplement*, rather than adjust, GDP so as to give a better portrayal of well-being and progress. Some of these measures take the form of aggregated or composite indexes that combine a number of indicators to produce a single value (e.g. the Human Development Index – see box). Others take the form of a dashboard (e.g. the EU's [Sustainable Development Indicators](#)) where a range of indicators drawn from different dimensions are presented side-by-side to give an overview of society's well-being and progress. Both types draw on objective social measurements, evaluations of subjective well-being or indicators related to the environment and the sustainability of economic activity in modern society.

The [Human Development Index](#) is the best known single metric for well-being and progress. A composite value, it combines measures of life expectancy, education and income to produce a single synthetic figure between zero and one that is then used to rank countries throughout the world. Developed since 1990 by the United Nations Development Programme (UNDP) for its Human Development Report, it serves primarily to orient international development policies, but is also used [within the EU](#) to compare countries and regions.

### Objective social indicators

In the aftermath of the financial and economic crisis, a major policy concern was to restore vigorous economic growth, for which GDP is a key indicator. However the response to the crisis also needed to take into account the most vulnerable in society and those who had suffered the most and hence draw on objective social indicators beyond GDP, including health, education, poverty and security.

The [European Statistical System Committee](#) (ESSC), with representatives from Eurostat, national statistical offices of Member States and observers from other bodies, is working towards developing a set of [Quality of Life](#) (QoL) indicators. The dimensions to be evaluated are material living conditions, work and employment, health, education, leisure and social interactions, economic and physical security, governance, environment, and overall experience of life. As part of the effort to improve measurement, the ESSC plans to collect household- and personal-level data on well-being as an ongoing part of the EU's [Statistics on Income and Living Conditions](#) (SILC) project. An *ad hoc* [module](#) on subjective well-being was included in the EU-SILC 2013 survey.

**Health** is one area where objective measures can provide significantly different results than GDP by relying on outcomes rather than expenditure. For example, although GDP per capita in France is [lower](#) than in the United States, the French have a higher life expectancy at birth than Americans. This difference in longevity increased by almost a year and a half between 1960 and 2006, even though French GDP per capita declined relative to that of the US. Other basic health indicators available through instruments such as Eurofound's Quality of Life Survey (EQLS) include self-rated general health, mental health and access to healthcare. However the fact that Europe's population is ageing, and that older people are in general less satisfied with their health means that satisfaction levels may decline in future, independently of other factors.

**Education** is another area where society's well-being and progress can be measured using standard values such as school enrolment, average levels of education attained, mean number of years of schooling, or results from standardised achievement tests of school-age children. Better education is important in part because it is [associated](#) with better health as well as higher income.

**Employment** is an economic activity, but also an important factor in an individual's quality of life. It not only provides income, but also a purpose in life, feelings of economic security and opportunities to socialise with others. Results from the European Quality of Life survey indicate that job security and adequate pay are [positively related](#) to life satisfaction; the lowest levels of subjective well-being are [reported](#) by the unemployed. However more hours spent in employment (increasing GDP and personal income) may at some point become harmful to quality of life as the amount of time for leisure is reduced.

Strong **social relationships** with friends and family are associated with positive feelings, health and longevity. Indicators useful for measuring 'social capital' traditionally include membership of associations, voluntary work and leisure activities that involve other people. Good social relations may involve trade-offs with other influences on well-being: geographical mobility may help a person to find employment, but weaken social ties if the worker is removed from a familiar social environment.

Quality of life can also depend on good **political governance** and the opportunity to participate in political life. Indicators include measures of the effective functioning of the rule of law and the accountability of institutions. These indicators can also be related to personal security: fear of crimes, accidents or natural disasters can lead to decreased quality of life, quite independently of whether the person has personally experienced any of these events.

Moreover, objective measures of quality of life that rely on averages or produce composite figures may hide **inequalities** within a particular country. Quite apart from inequalities in incomes, some countries may demonstrate excellence in one aspect of a particular dimension (e.g. high levels of enrolment in tertiary education) with poor results in another (e.g. education outcomes for under-privileged youth).

### Subjective well-being

[Subjective well-being](#) (SWB) is, simply put, how people understand their lives to be going. A number of initiatives (including Eurofound's Quality of Life Survey, the Gallup-Healthways Global Survey, Eurobarometer surveys and the EU's [Statistics on Income and Living Conditions](#) project) have sought to directly measure individual well-being through answers to questions about how people perceive their lives ('life satisfaction'), how they feel currently ('happiness'), and their sense of purpose and engagement in life ('eudaimonia').

For most analysts, the value of using SWB to evaluate policy options is simply that happiness is what would appear to matter most to people. [Others](#) argue that a person's belief that life is going well is a useful composite indicator which takes into account their appreciation of different aspects of life such as material consumption, health, social relationships, leisure and security. Good public policy should increase the population's average SWB, and increased SWB could point to progress in society.

However there have been questions raised about using SWB as a general indicator of well-being. Economist Richard Easterlin has [argued](#) that there is no relationship between long-term income growth rates (measured by GDP per capita) and increased happiness. Various [explanations](#) have been put forward to account for this 'Easterlin paradox': people's expectations adjust to improved circumstances; their sense of happiness is [relative](#) to the income of others or to their own past income; or people reach a threshold or satiation point in terms of economic or material well-being (e.g. GDP per capita of [US\\$20 000](#)) beyond which a higher standard of living does not increase (or increases only slightly) a person's sense of well-being. In line with this, EQLS data suggests that overall there has been [no significant decline](#) in life satisfaction in Europe during the recent economic downturn.

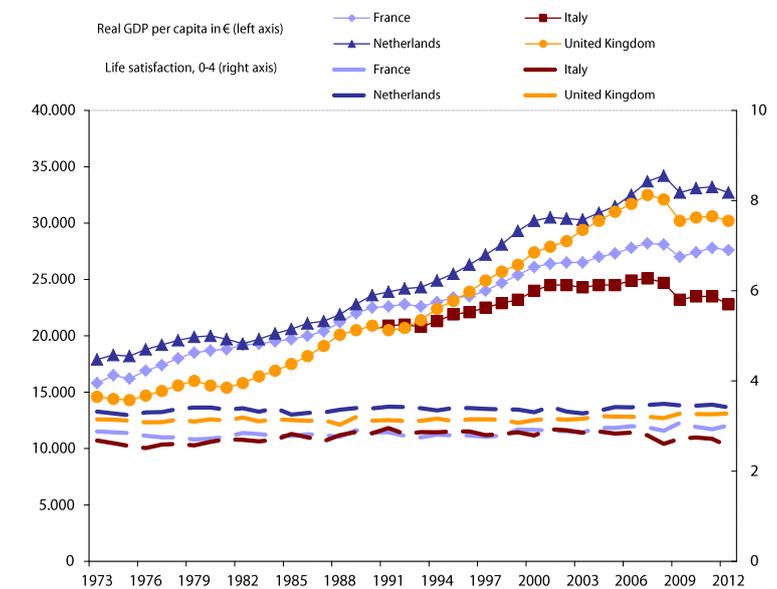
Other [experts](#), however, dispute even the existence of an Easterlin paradox. They argue that, based on closer analysis of broader data sets (and despite some variation between different countries), income can be shown to be logarithmically [related](#) to SWB. In other words, at low levels of income, an income increase will cause larger increases in SWB, while at higher income levels, increases will be less marked. They argue that if there is a satiation point, no society has yet [reached](#) it. According to the calculations of [one study](#), a 5% annual increase in GDP over 60 years should result in a gain in happiness of one point on a scale of ten.

There is as yet no clear consensus in these matters. However in many composite approaches to evaluating well-being in society, SWB is one factor used in the evaluation.

## Environment and sustainability

More than 20 years ago, the [United Nations \(UN\) Conference on Environment and Development](#) (the Rio Summit) and the landmark [Brundtland Commission](#) raised concerns about the effects of economic growth on the environment and our ability to meet present needs without compromising those of future generations. The 2012 UN Conference on Sustainable Development (Rio+20) [recognised](#) the need for alternative measures of progress to complement GDP in order to better inform policy decisions. EU citizens are sensitive to these issues: in a 2011 [Eurobarometer survey](#), 77% said that environmental factors influence their quality of life, less than economic factors (85%), but more than social factors (75%).

**Fig. 1 - Life satisfaction and GDP per capita for selected MS**



**Data source:** World Database of Happiness, [Measure 121C](#) (Eurobarometer data): Eurostat. [nama aux gho](#)

Nevertheless the relationship between well-being and progress on the one hand, and the environment and sustainability on the other, is problematic for several reasons. First, there needs to be a consensus about *what* needs to be sustained for future generations, which brings with it the obvious problems involved in predicting the future. Second, there needs to be a means to measure the consumption of these resources: while flows of natural resources are easier to measure than stocks, a capital-based approach would look at how much of the resources exist (a difficult task), and deduct from the total the non-renewable amount used each year. Third, assumptions need to be made about how some resources can be substituted for others. Proponents of *weak sustainability* believe that physical, social and human capital (e.g. buildings, roads, machines, institutions, education and technology) can make up for depletion of natural resources. Proponents of *strong sustainability* hold that there are certain levels of critical natural resources (clean air, water) that are a necessary condition for a quality life and must be passed on to future generations. The World Bank's [Wealth of Nations](#) activity and the [Economics of Ecosystems and Biodiversity initiative](#) have made progress in estimating the value of produced, human and natural capital.

A number of different measures of sustainability have been proposed. However one practical difficulty has been that these approaches often show that developing countries have the least sustainable policies, rather than developed countries which are known to consume large quantities of resources and produce large amounts of pollution.

Some [experts](#) feel that the best approach would be to identify all assets that matter for future well-being and their current stocks, and then produce a dashboard which gives an overview of the progression of those stocks over time and the minimum thresholds they would need to retain. However there are important [gaps](#) in basic statistics, e.g. on stocks and flows of natural assets, and what data is collected is often difficult to compare due to differences in methodology.

## EU and international context

### The European Union

The EU has long been concerned with well-being and social progress. Article 2 of the [Treaty of Rome](#) described 'raising of the standard of living' as one of the tasks of the Community; according to Article 3(1) of the [Treaty on the European Union](#) one of the EU's three aims is the promotion of the well-being of its peoples.

In 2007, the European Commission (EC), the European Parliament (EP) and other international organisations hosted a conference called '[Beyond GDP](#)' to discuss the best ways to measure environmental and social progress as well as economic development. In a 2009 Communication '[GDP and beyond](#)', the EC set out a roadmap with five key actions,

### Better Life Index

The OECD's [Better Life Index](#) allows for a comparison of well-being across countries, based on 11 key aspects that shape people's lives and well-being. These include housing, jobs, education, environment, civic engagement, health and life satisfaction as well as income. Each aspect is evaluated based on one to four statistical indicators, which are assigned equal weight (e.g. the 'education' score is based equally on standard reading skills and attained levels of education). Scores for each aspect can then be integrated into an overall value: the default is to treat all aspects equally, but users of the interactive website can give greater importance to certain dimensions so as to come up with their own overall country values and rankings. However data only start with 2011, so it will be a few years before evaluating social progress with this tool becomes possible.

including complementing GDP with social and environmental indicators, improving the timeliness of information and providing better reporting on inequalities of wealth and income. The EP [supported](#) the need to develop additional indicators to measure economic and social progress, as well as focussing more on the household level.

A 2013 EC [progress report](#) on 'GDP and beyond' highlighted the development of the EU's composite indicator for people at risk of poverty and social exclusion; the provision of early estimates for greenhouse gas emissions; the development of indicators for an EU Sustainable Development Scoreboard (see box); EU-supported research projects such as [e-Frame](#) (to encourage discussion on the measurement of well-being) and [Brainpool](#) (which is looking at opportunities and challenges in using indicators beyond GDP in policy development); and agreement on a [Regulation](#) for environmental economic accounts which led to significant increase in data coverage and timeliness for emissions, environmental taxes and material flow accounts. (Another proposal for an [economic accounts regulation](#), expected in 2014, will cover energy accounts, environmental goods/services and expenditures to protect the environment.) In 2013, while amending the Regulation on national accounts, the EP [called for](#) development of a comprehensive approach for measuring well-being and progress, that would complement GDP and take into account inequality as well as the environment.

The [Europe 2020 strategy](#) for smart, sustainable and inclusive growth has headline indicators that include both environmental measures (greenhouse gas emissions, energy consumption) and social targets (educational attainment and the number of people at risk of poverty and social exclusion) as well as economic goals (employment rate). In addition, the 2013 Communication from the EC on the [social dimension](#) of the Economic and Monetary Union (EMU) called for the creation of a scoreboard of five headline indicators of aspects which could undermine social cohesion and human capital: these included the at-risk-of-poverty rate, the unemployment rate and a measure of inequality. This scoreboard would be incorporated into the annual Joint Employment Report and would feed into discussions in the European Semester.

### Member States

Almost in parallel with the EU's initial steps to look beyond GDP, in 2008 French President Nicolas Sarkozy established a [Commission on the measurement of economic performance and social progress](#) (CMECSP), a committee of distinguished economists and social scientists

The EU's [Sustainable Development Strategy](#), adopted in 2001 and amended in 2006, aimed to improve the quality of life for present and future generations. The [Sustainable Development Indicators](#) (SDIs) were developed to monitor progress every two years in ten different dimensions. These include economic development (measured by GDP per capita) and also social policy (employment rate of older workers, people at risk of poverty); health (healthy life years, life expectancy); natural resources (bird index, fish stocks); and climate change (greenhouse gas emissions, renewable energy, and energy consumption).

### UK - measuring national well-being

In 2010, the [UK Office for National Statistics](#) launched a programme for [Measuring National Well-being](#). After an extensive public consultation about 'what matters' to citizens, a framework was developed to measure 41 statistically robust [headline indicators](#) in ten domains: the economy, personal finance, education, governance, the environment, individual well-being, health, personal relationships, 'where we live' (including housing, transport and personal security) and 'what we do' (including work, leisure, culture and sport). On the [website](#) for this initiative, interactive 'wheels', graphs and maps help in visualising changes and making comparisons.

(chaired by Nobel prize winners Joseph Stiglitz and Amartya Sen) tasked with identifying the limits of GDP and evaluating the feasibility of alternative measurement tools. The CMECSP [advocated](#) taking greater account of services and changes in quality of goods, as well as increasing focus on household income, consumption and wealth in measuring economic performance. It also recommended broadening measures to include both objective and subjective evaluations of health, education, work, political governance, social relationships, environment and security. A panel of French and German economists followed up on the CMECSP by [proposing](#) a dashboard of indicators. More recently other MS – notably the UK (see box above) and also [Italy](#), [the Netherlands](#) and [Spain](#) – have been pursuing, on a practical level, alternative ways of evaluating progress and well-being.

### International organisations

Measuring progress and well-being has also been a pre-occupation for international organisations, in particular the [Organisation for Economic Cooperation and Development](#) (OECD). The OECD has created the Better Life Index (see box above) and published [guides](#) to evaluating well-being. Moreover, it hosts [world forums](#) on statistics, knowledge and policy as well as [wikiprogress](#), a global platform for sharing information on evaluating economic, social and environmental progress.

Cooperation between the EU, MS and international bodies such as the OECD and the UN will be critical in terms of arriving at standard, comparable measures to evaluate well-being and progress and to guide decisions about future policies.

### Further reading

[Alternative progress indicators to Gross Domestic Product \(GDP\) as a means towards sustainable development: study](#) / European Parliament Policy Department A, PE 385.672, Brussels: European Parliament, 2007.

[Report by the Commission on the Measurement of Economic Performance and Social Progress](#) / J. Stiglitz, A. Sen, J.-P. Fitoussi, 2009.

Measuring subjective issues of well-being and quality of life in the European Statistics System / M. de Smedt. Social indicators research v. 114 (2013), p. 153-167.

Beyond GDP: measuring welfare and assessing sustainability / M. Fleurbaey, 2013.

[How's life? : measuring well-being](#) / OECD, 2013.

### Endnote

<sup>1</sup> The [Organisation for Economic Cooperation and Development](#), [Eurostat](#) and the [International Monetary Fund](#) all provide more specific information about the definition and calculation of GDP.

### Disclaimer and Copyright

This briefing is a summary of published information and does not necessarily represent the views of the author or the European Parliament. The document is exclusively addressed to the Members and staff of the European Parliament for their parliamentary work. Links to information sources within this document may be inaccessible from locations outside the European Parliament network. © European Union, 2014. All rights reserved. Photo credits: © DragonImages / Fotolia.