



European Economic and Social Committee

NAT/392
Beyond GDP - measurements
for sustainable development

Brussels, 22 October 2008

OPINION

of the

European Economic and Social Committee

on

Beyond GDP – measurements for sustainable development

(Own-initiative opinion of the Sustainable Development Observatory)

On 16-17 January 2008, the European Economic and Social Committee, acting under Rule 29(2) of its Rules of Procedure, decided to draw up an own-initiative opinion on:

Beyond GDP – measurements for sustainable development.

The Section for Agriculture, Rural Development and the Environment (Sustainable Development Observatory), which was responsible for preparing the Committee's work on the subject, adopted its opinion on 8 October 2008. The rapporteur was Martin Siecker.

At its 448th plenary session, held on 22-23 October 2008 (meeting of 22 October), the European Economic and Social Committee adopted the following opinion by 114 votes to 2 with 8 abstentions.

*

* *

1. Conclusions and recommendations

- 1.1 GDP is an important indicator of economic growth, but as an instrument for guiding policy it is inadequate to meet the challenges of the 21st century. Doing this requires other, complementary indicators. This was the conclusion both of the conference "Beyond GDP" held by the European Commission on 19 and 20 November 2007 in Brussels and the conference "A Convenient Truth" held on 10 January 2008 in Tilburg.
- 1.2 GDP is good for measuring the pace of the economy, showing how quickly we are earning money, regardless of whether this delivers useful products and services or whether it causes damage to people and the environment. What is needed above all is an instrument that will show how far we still are from achieving a sustainable and socially inclusive economy.
- 1.3 Since two different issues are concerned here – sustainability and welfare – two indicators are actually needed. Sustainability relates to a healthy planet today and in the future and to solidarity between the generations and is a prerequisite, whereas welfare is about social development and is a target variable. In the case of sustainability, it is enough to guarantee that a way of life can continue globally in the long term. If this criterion is met, there is no need to seek even greater sustainability. Welfare is different: more welfare is always better than less welfare, and it therefore makes sense to keep seeking more welfare.
- 1.4 There is an indicator for measuring sustainability and sustainability trends: namely the ecological footprint which despite its short-comings is the best available overall indicator on sustainable environmental development.

- 1.5 The footprint is an excellent communication tool and is one of the few – if not the only one – that takes into account the environmental impacts of our consumption and production patterns (imports and exports) on other countries. By using it it can be refined and it can be replaced if and when a better measure comes up in the future.
- 1.6 The challenge is to develop an indicator for social development that can measure the various dimensions of quality of life in a way that provides a realistic picture. The present opinion considers only this type of quality-of-life indicator because there is (as yet) no such policy instrument that is effective.
- 1.7 A practicable and scientifically reliable quality-of-life indicator must cover spheres that are generally considered crucial to quality of life and should:
- consist of objective factors that determine people's capabilities;
 - be sensitive to policy impact;
 - provide timely data;
 - allow comparisons between countries;
 - allow chronological comparisons;
 - be comprehensible to a wide audience.
- 1.8 The following six spheres are generally regarded as crucial for quality of life:
- physical integrity and health;
 - material wealth;
 - access to public services;
 - social participation and incomer integration;
 - leisure time;
 - quality of the surrounding environment.

The basic data needed to measure development in these areas are available within the EU Member States, though they probably need to be enhanced (e.g. with respect to frequency, collection, processing).

- 1.9 The indicator described here is not perfect. Nor is it intended to be a blueprint, but rather a contribution to the ongoing discussion on the subject. Measurement is a dynamic process, capturing changes in a society. Changes can in their turn create the need for alternative or more sophisticated indicators. Defining an indicator is also a dynamic process that must be based on debate and discussion, as is appropriate in a democratic society.
- 1.10 Switching to a policy that is not exclusively based on economic growth but is also determined by social and environmental factors can lead to a more sustainable and socially inclusive economy. This is too comprehensive a project to be short term. With an eye to feasibility, it is clear that the scope should be limited to the EU Member States, possibly with extension to the

candidate countries Croatia and Turkey and countries with comparable economic development profiles such as the United States, Canada, Australia, New Zealand and Japan. The huge differences in economic development make it impossible to create a single instrument that measures and explains developments in both developed and developing countries using the same scale.

2. **Limitations of GDP**

- 2.1 Happiness is the ultimate aim of all human beings. The government's primary task is to create conditions in which each citizen is in an optimum position to seek his or her happiness. This means that the government must always keep its finger on the nation's pulse to collect information about how society is doing. Measurement is the key to knowledge; only once you know what people are unhappy about and why, can you try to do something about it.
- 2.2 At present, Gross Domestic Product (GDP) is most widely used by governments as a measure of how society is doing. It was introduced as a measurement last century, after the Great Depression and the Second World War that followed. It is the most important, if not the only tool for policy-makers to measure, in particular, economic performance and activity. This is based on an internationally accepted system of national accounts which are drawn up using the same uniform method. Moreover, everything is converted into a single unit of measurement: money. For these reasons, it is easy to make international comparisons of GDP.
- 2.3 Nevertheless, it tells us nothing about people's well-being (happiness) or the sustainability of social development. Per capita GDP in the United States is among the highest in the world, but it does not make Americans happier than inhabitants of other countries and there is plenty that could be said about the sustainability of American society. Per capita GDP may be considerably higher than it was 60 years ago all over the world, but this has not led to a significant increase in happiness, since despite the universal nostalgia for "the good old days" a record 900 million people suffered from hunger in 2008. And hunger certainly does not make a person happy.
- 2.4 Social developments and economic relations today are fundamentally different from what they were in the middle of the last century. In the developed countries in particular there is a growing need to measure factors that are not the outcome of market transactions or formal economic processes. Many of these aspects and needs are not, or not adequately, included in GDP.
- 2.5 Rising levels of GDP can mask a considerable loss of welfare and well-being. For example, if a country chopped down all its forests, sold the wood and put its children to work instead of sending them to school, it would be very good for its GDP because the economic growth figures would show increasing material prosperity. However, it would be anything but sustainable and it would not make the population – particularly the children – happy or happier.

- 2.6 Natural and political disasters can be good for GDP. Hurricane Katrina was a boon to Louisiana's GDP because of the enormous efforts and economic activity that had to be invested in reconstruction. The same applies to the GDP of a number of Asian and African countries after the tsunami, and to the GDP of virtually all European economies after the Second World War. Quite apart from the fact that by no means everyone shared equally in the increased prosperity, these disasters can hardly be said to have contributed to human happiness or greater sustainability.
- 2.7 But less extreme examples also show that GDP is an inadequate measurement. Greater material prosperity leads to higher car sales and new roads being built. It leads to more accidents, higher costs (replacing/repairing the cars, costs of caring for those injured or disabled, higher insurance premiums). It can also lead to social evils such as higher levels of gun ownership and sales of anti-depressants to young people. All of which contributes to higher GDP, but not the ultimate goal of human happiness, except possibly for those who make their money out of such activities.
- 2.8 The dominance of GDP is particularly evident when it is falling; then panic breaks out. That should not necessarily happen. GDP may fall as a result of a positive development. If everybody replaces their traditional light bulbs by the latest LED lights tomorrow, this will result in a one-off high expenditure on new lamps but will also at the same time lead to a substantial structural decrease in the use of energy - and therefore in GDP - because these bulbs only use a fraction of the electricity which traditional light bulbs require.
- 2.9 To sum up, GDP is a good measure of economic performance, but there is no direct link between economic growth and progress in other areas of society. To get a complete picture you need indicators that measure what progress is being made in the social and environmental dimensions, for example.

3. **Other factors of well-being**

- 3.1 The discussion about the need for other measurements in addition to GDP is taking place in various places simultaneously. The European Commission, for example, organised a conference in Brussels on 19 and 20 November 2007 entitled "Beyond GDP"¹, and on 10 January 2008 a conference was held at the University of Tilburg under the title "A convenient truth"². There are clear parallels between the findings of the two conferences, both of which stress the need for indicators other than economic growth alone. GDP is a good speedometer for the economy, showing how fast we are earning money, regardless of whether this produces useful goods and services or damages mankind and the environment. What is

1 www.beyond-GDP.eu.

2 www.economischegroei.net.

really needed are measures to show how far we still have to go to achieve a sustainable, socially inclusive economy. Shortly after the introduction of GDP, distinguished economists such as Samuelson³ already argued in favour of broadening the concept of gross domestic product with non-material aspects such as the environment and natural values, in order to remove the restriction of GDP to purely economic aspects. However, these attempts have not resulted in an accepted adjusted version of GDP and the traditional concept of GDP remains dominant. A number of experts have studied this issue, and their views are summarised below.

- 3.2 In his book "Happiness"⁴, the British professor of labour economics **Richard Layard** concludes that over the past 50 years Western man has failed to find greater happiness despite a sharp increase in material prosperity. This he attributes to the high levels of competition between people, with everyone wanting above all to earn more than everyone else. This single-minded obsession has led to a deterioration in things that are more important for human happiness: stable families, job satisfaction and good relations with friends and the community. All of which is apparent from the statistics on the growing numbers of divorces, increased work-related stress and high crime rates. In order to restore the balance, more emphasis must be placed on equality of opportunity to earn income than on income equality.
- 3.3 In his theory of welfare economics the Indian economist **Amartya Sen**⁵ stresses that welfare is not about goods but about the activities for which these goods are acquired. Income creates opportunities for individuals to engage in activities and so improve themselves. These opportunities – which Sen calls "capabilities" – also depend on factors such as health and life expectancy. In developing countries, in particular, information about the mortality rate is important because it is a good indicator of factors such as social inequality and the quality of life.
- 3.4 In her latest book "Frontiers of Justice" the American philosopher **Martha Nussbaum**⁶ suggests ten minimum social rights that are essential for a life of dignity. A society that cannot guarantee its citizens a certain threshold level of these rights and freedoms is, in her view, failing in its duty and is not truly just. The specific "capabilities" she lists are the ability to live a human life of normal duration, to enjoy good health, to travel freely, to use one's intelligence, to form attachments to things and other people, to form a concept of good, to live with and for other people without any form of discrimination, to live with due care for and in relation to animals and nature, to laugh and play, to participate in political choices and to acquire property. The list is not absolute and can be extended.

³ Paul A. Samuelson, Evaluation of Real National Income, *Oxford Economic Papers*, 1950; 2: 1-29.

⁴ Richard Layard. Happiness: Lessons from a New Science, Penguin Books, 2005.

⁵ Amartya Sen, *Commodities and Capabilities*, Amsterdam, North-Holland, 1985.

⁶ Martha C. Nussbaum, *Frontiers of Justice: Disability, Nationality, Species Membership*, Harvard University Press, 2006.

4. Other indicators

- 4.1 Various initiatives exist to measure variables other than GDP that are of importance for understanding the state of society. Below is a short indicative overview and concise description of four such indicators. There are more, such as the initiative of the Federal Council for Sustainable Development in Belgium⁷, the Canadian Index of Wellbeing (CIW)⁸, the Gross National Happiness Index of Bhutan⁹, the QUARS initiative in Italy¹⁰, the Stiglitz Commission in France¹¹, and the worldwide OECD project¹² for measuring development. Relevant information can also be obtained from Eurofound¹³. There is not enough space here to mention them all.
- 4.2 The **Human Development Index**¹⁴ is a measure of the progress of society and of groups in society. It has been used by the United Nations Development Programme (UNDP) since 1993 to produce an annual report on the situation in each country. In addition to income, it takes into account life expectancy, literacy rate and educational attainment. A Human Poverty Index¹⁵ has also been published since 1977 which includes access to education, access to safe food and water and access to healthcare. The HDI is partly based on Sen's theories. The HDI works well in developing countries, but has the disadvantage of being less effective for measuring progress in the developed world.
- 4.3 The **Ecological Footprint**¹⁶ is based on the idea that consumption can be converted into the surface area that is needed to produce it. It is then possible to compare the environmental impact of different consumer behaviour (lifestyles) and different population groups (countries). There are 1.8 hectares of productive land available for each person in the world to satisfy their individual consumption. We are currently using 2.2 hectares per person worldwide, which means that humanity is rapidly depleting the earth's resources. However,

7 www.duurzameontwikkeling.be.

8 www.statcan.ca.

9 www.bhutanstudies.org.bt.

10 www.sbilanciamoci.org.

11 <http://www.stiglitz-sen-fitoussi.fr/en/index.htm>.

12 <http://www.oecd.org/statsportal/>.

13 <http://www.eurofound.europa.eu/>

14 www.eurofound.europa.eu/.

15 <http://hdr.undp.org/en/statistics/>.

16 www.footprintnetwork.org.

enormous differences exist within this global figure: the average ecological footprint in the United States is 9.6 hectares per capita, compared with 0.5 hectares in Bangladesh. Without a change in policy these problems will only increase. Erosion and desertification are constantly reducing the amount of productive land available, and an increasing world population means that ever more people have to share the smaller number of hectares. At the same time, demand is growing as increased prosperity leads to higher consumption. The Ecological Footprint is a good indicator of sustainable development, but has the disadvantage of not showing anything about people's well-being.

- 4.4 The *Leefsituatie Index (Quality of life index)*¹⁷ provides a systematic description and analysis of the living conditions of the Dutch population. It is also known as the *Sociale Staat van Nederland* or SSN (Social State of the Netherlands). It describes the changes in living conditions over a period of roughly ten years, looking at subjects such as income, employment, education, health, leisure activities, mobility, crime, housing and the residential environment. In addition to chapters on the different social issues, the SSN contains a quality of life index integrating the social indicators. It also gives information on how the public views politics and the government. The research is published every two years by the *Sociaal Cultureel Planbureau* (Dutch Social and Cultural Planning Office). The Leefsituatie Index has never acquired much authority in the Netherlands because it is essentially a hotchpotch of disparate elements and therefore does not provide a good, consistent picture of social well-being.
- 4.5 Professor Ruut Veenhoven of the Erasmus University in Rotterdam has been studying happiness all over the world for thirty years. In his **World Database of Happiness**¹⁸ he concludes that the correlation between money and happiness is extremely weak. People who receive more money experience a short-lived increase in happiness, but this disappears after one year. Freedom to organise one's time and make choices usually produces a deeper feeling of happiness. Just like Layard, he sees a clear difference in this respect between developed and developing countries. In the latter an increase in income leads to a greater and more lasting feeling of happiness than in developed countries. This difference disappears when per capita GDP exceeds a level of between 20 000 and 25 000 dollars. The disadvantage of the World Database of Happiness is that differences in individual preferences can be a factor when measuring experiences of happiness. Moreover, experiences of happiness are not easily influenced by public policy.

5. Possible applications

- 5.1 There are broadly two ways of subverting the dominant position of GDP in socio-economic policy. The first is to create a series of other indicators that complement GDP for (aspects of)

17 <http://hdr.undp.org/en/statistics/indices/hpi/>.

18 <http://worlddatabaseofhappiness.eur.nl/>.

sustainability and well-being, and which should have equal weight to GDP in policy-making. The second is to replace GDP with a new, overarching indicator that includes all the relevant aspects of sustainability and well-being. This new indicator should then be a guiding principle of socio-economic policy.

- 5.2 The first possibility – to have a series of indicators complementing GDP - actually already exists but does not work. There are already many indicators that measure various aspects of sustainability and well-being: indicators of democracy, happiness and life satisfaction, of health, educational level, literacy, freedom of opinion, criminality, quality of the environment, CO₂ emissions, ecological footprint, etc. But less importance is attached to these indicators than to GDP, which is still seen as the most comprehensive and least controversial indicator of our welfare.
- 5.3 The second possibility – one overarching indicator replacing GDP - is problematic because there are two quite different factors involved: sustainability and welfare. Sustainability is a prerequisite, whereas welfare is a target variable. In the case of sustainability, it is enough to guarantee that a way of life can continue globally in the long term. If this criterion is met, there is no need to seek even greater sustainability. Welfare is different: more welfare is always better than less welfare, so it makes sense to keep seeking more welfare.
- 5.4 Since it is difficult to combine these two quite different things, a third possibility can be considered: two indicators in addition to GDP, namely a sustainability indicator and a quality-of-life indicator. There is an indicator for measuring sustainability and sustainability trends: namely the ecological footprint which despite its short-comings is the best available overall indicator on sustainable environmental development. The footprint is an excellent communication tool and is one of the few – if not the only one – that takes into account the environmental impacts of our consumption and production patterns (imports and exports) on other countries. By using it it can be refined and it can be replaced if and when a better measure comes up in the future. No effective indicator exists yet for social development that can measure the various aspects of quality of life in a way that provides a realistic overall picture. This opinion is concerned only with such a quality-of-life indicator.

6. **Quality-of-life indicator**

- 6.1 A practicable and scientifically reliable quality-of-life indicator must cover spheres that are generally considered crucial to quality of life and should:
- consist of objective factors that determine people's capabilities;
 - be sensitive to policy impact;
 - provide timely data;
 - allow comparisons between countries;
 - allow chronological comparisons;
 - be comprehensible to a wide audience.

6.2 Spheres generally regarded within the EU as crucial for quality of life that meet these criteria include:

- **Physical integrity and health.** This indicator measures the percentage of the population that is not physically prevented either by "internal" factors (sickness, handicap) or "external" factors (crime, imprisonment) from functioning as it wishes.
- **Material wealth.** This is understood as the mean standardised disposable income in purchasing power parities, which is the best general measure of the effective purchasing power of the average person. Purchasing power in different countries is made comparable by correcting for disparities in local price levels.
- **Access to public services.** Percentage of GDP allocated to healthcare, education, public transport, housing and culture.
- **Social participation.** Percentage of the population between the ages of 20 and 65 in paid work plus the percentage of the population over the age of 20 involved in voluntary work. Having paid work is generally regarded as one of the most important forms of social participation and integration. In addition to paid work, voluntary work is important for maintaining all sorts of social structures, challenging the domination of the economic sphere. With the increased mobility of people, it is important to welcome incomers and support their cultural and social integration into existing communities.
- **Leisure time.** Average number of hours of leisure time for the population between the ages of 20 and 65 that is not devoted to education and paid or unpaid work (including commuting time, housework and care). Leisure time which is the result of involuntary unemployment should be deducted from this figure. Sufficient leisure time is - in addition to paid work - essential to enable people to structure their life in their own way.
- **Quality of the living environment.** Nature as a percentage of total land area plus the percentage of the population that is not exposed to atmospheric pollution. This is not about the contribution of nature and the environment to the sustainability of socio-economic development (for which a separate indicator exists, the ecological footprint), but about peoples' quality of life. The indicator is therefore limited to the two aspects of nature and environment that they can experience directly as positive or negative.

6.3 These six spheres are measured in different units. To merge them into a single overarching indicator, they must first be made comparable. The easiest way of doing this, which is also effective, is to calculate a standardised score (Z-score) from each individual indicator using an internationally accepted and frequently used statistical method. The Z-score is a variable with a mean of 0 and standard deviation of 1. This means that roughly one third of countries score between 0 and +1, one third between 0 and -1, one sixth above +1 and one sixth below -1. The overarching indicator can thus be calculated as the mean of the Z-scores for the six spheres.

6.4 To measure changes over time, Z-scores cannot be re-calculated each year on the basis of the mean and standard deviation for that year, as the mean quality of life would then by definition

be the same each year. The mean and standard deviations of the first year during which the indicator is used are therefore also adapted to the calculation of Z-scores in the following years. If the mean is higher one year than it was the year before this therefore indicates that mean quality of life has effectively improved. Conversely, if the mean is lower one year than it was the year before, this indicates that mean quality of life has effectively deteriorated.

- 6.5 The result of this calculation means little to the wider public who are not familiar with the technical concepts underlying statistics. For the sixth criterion (comprehensibility to a wide audience) to be met, it is preferable to draw up a league table each year based on the statistical data from which anybody can see directly how well – or poorly – their own country scores compared with other countries, as well as how well – or poorly – their country scores compared with the previous year. Such tables are generally very appealing to people and could promote the popularity of the tool, which could provide further strong incentives to achieve an improvement in quality of life.

7. **Towards a more balanced policy**

- 7.1 The data needed to identify progress in these six spheres are generally available in the EU countries, though the frequency or quality may vary. Financial and economic reporting is an established practice; relevant information is available daily in the form of stock exchange indices. Environmental or quality-of-life reporting is relatively new, and the information available is therefore more limited. Social and environmental statistics are often two to three years old. Making these data cohesive in terms of quality and availability is one of the most important prerequisites for an adequate and high-quality indicator. But the basis is there: in principle it should be possible to start using this indicator relatively soon if political agreement is reached on the matter. One politically attractive feature of such an indicator could be that it has more growth potential than GDP, certainly in the near future in the EU.

- 7.2 Measurement alone is not enough; the results must be taken into account in policy-making. The 21st century is facing us with numerous problems to which we have no tried-and-tested solutions because they have arisen quite recently. Speed is called for because the planet is being exhausted by the absence of structural solutions. By switching to policies that are not based exclusively on economic growth, but also take account of sustainable development in the economic sphere (durability of economic activity), social sphere (making it possible for people to lead a healthy life and generate an income, and for those who cannot to provide an adequate level of social security), and environmental sphere (maintaining biodiversity, switching to sustainable production and consumption), it is possible to address a number of pressing issues (employment, inequality, education, poverty, migration, happiness, climate change, depletion of the earth's resources) in a manageable way.

- 7.3 The indicator described here is not perfect. Nor is it intended as a blueprint, but rather a contribution to the ongoing debate on the subject. The number of spheres might have to be expanded, and the criteria that they are required to meet should perhaps be tightened up. And

such an indicator is never complete. Measurement is a dynamic process, since the object of measurement is social change. Changes in their turn can create a need for alternative or more sophisticated indicators. Defining an indicator is also a dynamic process and must be the outcome of debate and discussion, as is appropriate in a democratic society.

- 7.4 This is not a short-term project, it is too comprehensive for that. With an eye to feasibility, it is clear that the scope should be limited to the EU Member States. The process could be extended to the candidate countries Croatia and Turkey and countries with comparable political and economic systems such as the United States, Canada, Australia, New Zealand and Japan. The huge differences in economic development make it impossible to create a single instrument that measures and explains developments in both developed and developing countries using the same scale. Because of the similarities between the political systems in these countries, the individual indicator of democratic freedoms has not been included as one of the spheres which is regarded as crucial for the quality of life because its attainment within this group of countries is considered to be self-evident.
- 7.5 A policy that is not exclusively based on economic growth but is also determined by social and environmental factors can lead to better and more balanced political choices and contribute to a more sustainable and socially inclusive economy. The EESC expects the European Commission to make its views on the subject clear in the progress report on EU sustainable development strategy that the Commission intends to publish in June 2009. The European social model as defined in a previous Committee opinion can be chosen as the goal¹⁹. The premise of this model is that it paves the way for a democratic, environment-friendly, competitive, socially inclusive welfare space based on the social integration of all EU citizens.

Brussels, 22 October 2008.

The President
of the
European Economic and Social Committee

The Secretary-General
of the
European Economic and Social Committee

Mario Sepi

Martin Westlake

¹⁹ OJ C/309, 16.12.2006, p. 119.