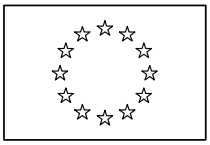

COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, 20.8.2009
COM(2009) 433 final

COMMUNICATION FROM THE COMMISSION TO THE COUNCIL AND THE EUROPEAN PARLIAMENT

GDP and beyond
Measuring progress in a changing world

COMMUNICATION FROM THE COMMISSION TO THE COUNCIL AND THE EUROPEAN PARLIAMENT

GDP and beyond
Measuring progress in a changing world

1. INTRODUCTION

Gross Domestic Product (GDP) is the best known measure of macro-economic activity.[1] Developed in the 1930s, GDP has become a standard benchmark used by policy-makers throughout the world and is widely used in public debates. GDP aggregates the value added of all money-based economic activities. It is based on a clear methodology that allows comparisons to be made over time and between countries and regions.

GDP has also come to be regarded as a proxy indicator for overall societal development and progress in general. However, by design and purpose, it cannot be relied upon to inform policy debates on all issues. Critically, GDP does not measure environmental sustainability or social inclusion and these limitations need to be taken into account when using it in policy analysis and debates.[2]

The need to improve data and indicators to complement GDP has been increasingly recognised and is the focus of a number of international initiatives. These initiatives also reflect renewed societal and political priorities. In November 2007, the European Commission (together with the European Parliament, the Club of Rome, the WWF and the OECD) organised the Beyond GDP conference.[3] The conference revealed strong support from policy-makers, economic, social and environmental experts and civil society for developing indicators that complement GDP and aim to provide more comprehensive information to support policy decisions.

This Communication therefore identifies a number of actions that can be taken in the short to medium term. The overall aim is to develop more inclusive indicators that provide a more reliable knowledge base for better public debate and policy-making. The Commission intends to cooperate with stakeholders and partners to develop indicators that are internationally recognised and implemented.

---

1 GDP = private consumption + investment + government consumption + (exports − imports). The framework and rules on how to calculate it are set in the European System of Accounts which is broadly consistent with the UN System of National Accounts.

2 For a recent overview of limitations of GDP see Stiglitz/Sen/Fitoussi (2008) Issues Paper, Commission on the Measurement of Economic Performance and Social Progress (http://www.stiglitz-sen-fitoussi.fr/documents/Issues_paper.pdf).

3 www.beyond-gdp.eu

2. MEASURING PROGRESS IN A CHANGING WORLD

2.1. Improved indicators reflecting new political and technical context

The EU bases several policy decisions and instruments on GDP. In the current economic downturn, restoring economic growth is the major concern, and GDP growth is a key indicator to assess the effectiveness of the EU and national governments' recovery plans.

When the European Council endorsed the European Economic Recovery Plan[4] it recognised that the crisis should also be taken as an opportunity to set our economy more firmly on the path to a low-carbon and resource-efficient economy. The response to the crisis should seek to protect the hardest hit and the most vulnerable in society. These challenges point to the need for more inclusive markers than just GDP growth; for indicators that concisely incorporate social and environmental achievements (such as improved social cohesion, accessibility and affordability of basic goods and services, education, public health and air quality) and losses (e.g., increasing poverty, more crime, depleting natural resources). The reflections on indicators contained in this Communication could contribute to setting new strategic goals for the post-2010 Lisbon Strategy.

Statistical techniques and computing technologies have also developed beyond recognition since the inception of national accounts and GDP. The EU finances several research projects on new indicators reflecting wider public concerns than those currently covered by GDP. There are no insuperable technical obstacles to developing the quality and scope of our indicators even further so that policy decisions can progressively be based on a more integrated, balanced and timely view of social, economic and environmental facts.

2.2. Building on international and Member States efforts

Reflection on how to complement GDP is not new. Several routes are being explored by international and national institutions. The UNDP has developed a Human Development Index (HDI) to benchmark countries based on combined measurement of GDP, health and education. The World Bank with its calculation of genuine savings has pioneered the inclusion of social and environmental aspects when assessing the wealth of nations. The OECD is running the Global Project on Measuring the Progress of Societies fostering the use of novel indicators in a participatory way. Several NGOs measure the "ecological footprint" – a measurement that has been formally recognised as a target for environmental progress by some public authorities. Researchers have published pilot indices of well-being and life satisfaction. The EU and Member States have developed and use a broad range of social and environmental indicators, often regrouped in sets of sustainable development indicators. The EU also promotes and supports the use of internationally recognised indicators in neighbouring countries and developing countries. Integrated economic and environmental accounts are increasingly providing a wealth of information based on sound methodology.

Against this context, solutions to improve, adjust or complement GDP are being sought. Most recently, France set up the high level Commission on the Measurement of Economic Performance and Social Progress, chaired by Joseph Stiglitz, in order "to identify the limits of GDP as an indicator of economic performance and social progress" and "to consider

[4] COM (2008) 800 final

additional information required for the production of a more relevant picture". Its report is due later this year.

The Commission closely monitors and in many cases contributes to these developments to ensure international comparability between indicators.

2.3. Improved indicators meeting citizens' concerns

These initiatives are in line with public opinion as citizens aspire to balanced progress.

A 2008 Eurobarometer poll showed that more than two thirds of EU citizens feel that social, environmental and economic indicators should be used equally to evaluate progress. Only just under one sixth prefer evaluation based mostly on economic indicators. An international poll in 2007 gave similar results.[5]

Studies have also revealed that citizens can feel distanced from statistical information. GDP may be growing, but disposable incomes and public services are perceived as shrinking. As societies become more diverse, indicators based on averages or "the typical consumer" are not sufficient to fulfil the information needs from citizens and policy-makers. Complementing GDP with additional concise metrics that reflect wider public concerns would demonstrate greater linkage between EU policy and citizens' preoccupations.

3. FIVE ACTIONS TO BETTER MEASURE PROGRESS IN A CHANGING WORLD

Against this background, the Commission proposes to implement the following five actions, which can be revised or supplemented in the light of the review planned in 2012.

3.1. Complementing GDP with environmental and social indicators

Indicators that summarise important issues with a single figure are essential communication tools. They trigger policy debate and give people a feel for whether or not progress is on track. GDP and the unemployment and inflation rates are prominent examples of such summary indicators. But they are not meant to reflect where we stand on issues such as the environment or social inequalities. To fill this gap, the Commission services intend to develop a comprehensive environmental index and improve quality-of-life indicators.

3.1.1. A comprehensive environmental index

There is currently no comprehensive environmental indicator that can be used in policy debates alongside GDP. Such a single measurement for the environment would help foster a more balanced public debate on societal objectives and progress. Close candidates for such a purpose are the ecological and carbon footprints, but both are limited in scope.[6] As

---

5 Special Eurobarometer 295/ March 2008; a similar poll conducted in 10 countries on the five continents shows an even higher support for going beyond GDP, with three quarters agreeing.

6 The carbon footprint summarises only greenhouse gas emissions. The Ecological Footprint excludes some impacts, e.g. on water. The Commission is testing it however among other indicators to monitor the Thematic strategy on Sustainable Use of Natural Resources and the Biodiversity Action Plan.

methodologies for composite indices and data are now sufficiently mature[7], Commission services intend to present a pilot version of an index on environmental pressure in 2010.

This index will reflect pollution and other harm to the environment *within* the territory of the EU to assess the results of environmental protection efforts. A fall in the value of the index will show that progress on environmental protection is being made. It will comprise the major strands of environmental policy:

- climate change and energy use
- nature and biodiversity
- air pollution and health impacts
- water use and pollution
- waste generation and use of resources

The index will initially be published annually for EU and Member States with the longer term aim being – if successful – to publish it in parallel to GDP. Complementary information on sub-themes and related environmental goals set on EU and national level will be published too to allow for correct interpretation of the index. By looking at it alongside GDP and social indicators, citizens would be able to assess whether EU and national policies – together with citizens' and business efforts – deliver the level of environmental protection they expect and whether progress is achieved in a balanced way towards social, economic and environmental goals.

In addition to this comprehensive index on *harm* to or *pressure* on the environment, there is potential to develop a comprehensive indicator of environmental *quality*, e.g., showing numbers of European citizens living in a healthy environment. Research on this will be stepped up.

The Commission will also continue to work on indicators that capture the environmental impact *outside* the territory of the EU (e.g. indicators to monitor the Thematic Strategy on Sustainable Use of Natural Resources) and will continue to support improvement of the Ecological Footprint.

3.1.2. Quality of life and well-being

Citizens care for their quality of life and well-being. Income, public services, health, leisure, wealth, mobility and a clean environment are means to achieve and sustain those ends. Indicators on these "input" factors are therefore important for governments and the EU. In addition, social sciences are developing increasingly robust direct measurements of quality of life and well-being and these "outcome" indicators could be a useful complement to the "input" indicators.

The European Foundation for the Improvement of Living and Working Conditions is working on this issue. In addition, the Commission has launched studies on the feasibility of well-

[7] OECD, European Commission, Joint Research Centre, Handbook on Constructing Composite Indicators: Methodology and User Guide, 2008.

being indicators and on consumer empowerment and, with OECD, on people's perception of well-being.

3.2. Near real-time information for decision-making

Factors including globalisation and climate change are bringing ever faster changes to the economy, society and the environment. Policy-making requires equivalent information on all those aspects – even if this goes at the expenses of accuracy – as it has to react quickly to new developments. Currently, there are considerable differences in the timeliness of statistics in the different areas. GDP and unemployment figures are published frequently within a few weeks of the period they are assessing and this can allow near real-time decision making. By contrast, environmental and social data in many cases are too old to provide operational information e.g. on fast-changing air and water quality or work patterns. The Commission will therefore aim to increase the timeliness of environmental and social data to better inform policy-makers all across the EU.

3.2.1. More timely environmental indicators

Satellites, automatic measurement stations and the internet make it increasingly possible to monitor the environment in real time. The Commission is stepping up efforts to realise this potential. It has taken major steps to employ these technologies with the INSPIRE Directive[8] and GMES.[9] Last year the Commission presented the Shared Environmental Information System (SEIS), a vision of how to link traditional and novel data sources online and make them publicly available as fast as possible. A first example of such "near real-time reporting" is the ozone web of the European Environment Agency (EEA) which provides data on harmful ground-level ozone concentrations to support daily decisions such as whether to take the car or public transport, or whether or not to undertake outdoor activities.[10]

More timely data can also be produced by "now-casting", which uses statistical techniques similar to those used in forecasting to make reliable estimates. For instance, the EEA intends to produce short-term estimates of greenhouse gas emissions based on existing short-term energy statistics. Eurostat intends to extend its use of now-casting to environmental accounts.

3.2.2. More timely social indicators

Social data is usually collected from surveys using face-to-face interviews with large samples of respondents or using administrative data sources (e.g. tax or social security registers). The Commission, together with Member States, has been working to streamline and improve the surveys and reduce the time lag between data collection and publication. The European Labour Force Survey collects data on employment quarterly and results are published within half a year. Data on Healthy Life Years are also collected and disseminated on a yearly basis. Whenever possible and cost-effective, the timeliness of social data will be improved, e.g. with the new European System of Social Statistical Survey Modules.

---

8 Directive 2007/2/EC

9 Global Monitoring for Environment and Security

10 http://www.eea.europa.eu/maps/ozone/map

3.3. More accurate reporting on distribution and inequalities

Social and economic cohesion are overarching objectives of the Community. The aim is to reduce disparities between regions and social groups. In addition, far-reaching reforms – such as those required to fight climate change or to promote new patterns of consumption – can only be achieved if efforts and benefits are felt to be equitably shared among countries, regions, and economic and social groups.

This is why distributional issues attract increasing attention. For example, even if the GDP per capita figure for a country is rising, the number of people living at risk of poverty may be increasing. Existing data from national accounts, e.g. on household income, or from social surveys such as EU-SILC[11], already allow for an analysis of key distributional issues. Policies affecting social cohesion need to measure disparities as well as aggregates such as GDP or GDP per capita.

In its *Renewed Social Agenda: Opportunities, Access and Solidarity*,[12] the Commission reiterated its commitment to fight poverty, social exclusion and discrimination. To foster exchange of experience between Member States, the Commission reports on a set of indicators agreed with Member States, to inform policy-makers about income disparities and particularly about the situation at the lower end of the income scale. The analysis of situations in Member States also looks at education, health, life expectancy, and various non-monetary aspects of social exclusion. Indicators of equal access to quality housing, transport and other services and infrastructure that are essential to participate fully in society – and hence to contribute to economic and social progress – are being developed.

In addition, the link between social exclusion and environmental deprivation has been gaining attention. Clean air and water, unspoiled landscapes and rich biodiversity on the one hand and pollution and noise on the other are not evenly distributed. A recent study[13] contracted by the Commission confirmed that poorer people, while polluting less, live in areas of lower environmental quality, which contributes to poorer health, stress and vulnerability to natural disasters.

These analyses will be regularly updated and their results published.

3.4. Developing a European Sustainable Development Scoreboard

Sustainable Development (SD) is an overarching objective of the European Union. The aim is to continuously improve the quality of life and well-being on Earth for present and future generations. The EU Sustainable Development Indicators (SDIs)[14] have been developed together with Member States to monitor progress on the multitude of objectives of the EU Sustainable Development Strategy (SDS) and are reflected in the Commission's biennial Progress Report.

However, this monitoring tool does not fully capture recent developments in important areas that are not yet well covered by official statistics (such as sustainable production and

---

11 EU Statistics on Income and Living Conditions

12 COM (2008) 412

13 "Addressing the social dimensions of environmental policy", study commissioned by DG EMPL, July 2008; see http://ec.europa.eu/social/main.jsp?catId=88&langId=en&eventsId=145.

14 Cf. Eurostat Statistical Book "Measuring progress towards a more sustainable Europe – 2007".

consumption or governance issues). For several reasons, SDIs cannot always be based on the most recent data. Consequently, they may not fully reflect the efforts that businesses, civil society or governments at local or national levels are making to meet these challenges.

A Sustainable Development Scoreboard

To stimulate the exchange of experience between Member States and among stakeholders on policy responses, we need a more concise and up-to-date set of data. The Commission therefore explores the possibilities to develop, together with Member States, a Sustainable Development Scoreboard. The SD Scoreboard, based on the EU SDI set, could also include other quantitative and qualitative publicly available information, for instance on business and policy measures. The Commission services intend to present a pilot version of the SD scoreboard in 2009.

Thresholds for environmental sustainability

The SDS sets as a key objective to respect the limits of the planet's natural resources. These include nature's limited capacity to provide renewable resources and absorb pollutants. Scientists are seeking to identify related physical environmental threshold values and highlight the potential long-term or irreversible consequences of crossing them. For policy-making it is important to know the "danger zones" before the actual tipping points are reached, thereby identifying alert levels. The cooperation of research and official statistics will be stepped up in order to identify – and regularly update – such threshold values for key pollutants and renewable resources in order to inform policy debate and support target setting and policy assessment.

3.5. Extending National Accounts to environmental and social issues

The European System of Accounts is the main tool behind EU economic statistics as well as many economic indicators (including GDP). As a foundation for coherent policy-making, we need a data framework that consistently includes environmental and social issues along with economic ones. In its June 2006 conclusions, the European Council called on the EU and its Member States to extend the national accounts to key aspects of Sustainable Development. The national accounts will therefore be complemented with integrated environmental-economic accounting that provides data that are fully consistent. As methods are agreed and the data becomes available this will be complemented, in the longer term, with additional accounts on social aspects.

This will provide an integrated evidence base to underpin policy analysis, helping to identify synergies and trade-offs between different policy objectives, feeding for example into ex-ante impact assessment of policy proposals. The Commission will ensure that this work is taken further in future revisions of the international System of National Accounts and the European System of Accounts. In the longer term it is expected that more integrated environmental, social and economic accounting will provide the basis for new top-level indicators. The Commission services will continue to explore – through collaboration with international organisations, dialogue with civil society and research projects – how such macro-indicators could best be designed and used.

3.5.1. Integrated environmental-economic accounting

The Commission presented its first strategy on "green accounting" in 1994.[15] Since then Eurostat and the Member States – in collaboration with the UN and the OECD – have developed and tested accounting methods to the point where several Member States now regularly provide first sets of environmental accounts.

Most common are the physical flow accounts on air emissions (including greenhouse gases) and on material consumption and the monetary accounts on environmental protection expenditure and taxes. As the next step, the Commission plans to extend data collection in these areas to all Member States. As a following step, physical environmental accounts could be set up for energy consumption, waste generation and treatment, and monetary accounts for environment-related subsidies. The Commission aims to have these accounts fully available for policy analysis by 2013. To ensure the accounts are comparable the Commission plans to propose a legal framework for Environmental Accounting early next year.

A second strand of environmental accounts relates to natural capital, in particular changes in stocks, the most advanced of which are the accounts on forests and fisheries stocks. The Commission will contribute to the work currently undertaken at UN level.

A further challenge in the development of environmental accounting is complementing physical environmental accounts with monetary figures, based on valuation of the damage caused and prevented, changes in the stock of natural resources and in eco-system goods and services obtaining representative, robust, comparable and reliable monetary measures at national and EU level[16]. Monetising the costs of environmental damage and the benefits of environmental protection can help to focus policy debate to the extent that our prosperity and well-being depend on goods and services provided by nature. At micro level such valuation is conceptually sound. It is covered by several studies, notably the TEEB (The Economics of Ecosystems and Biodiversity) initiative, an ongoing wide ranging valuation of ecosystem services, jointly undertaken by UNEP, several countries and the Commission. Valuation is widely used in the Commission's impact assessments.[17] The EEA plans to continue its work on valuation of and accounting for ecosystem goods and services, with a view to establishing internationally accepted methods. However, translating such studies to macro level in a meaningful way needs further research and testing. The Commission intends to step up work on monetary valuation and the further development of conceptual frameworks.

3.5.2. Increasing use of existing social indicators from national accounting

The existing European System of Accounts includes already indicators that highlight socially relevant issues, such as the disposable income of households and an adjusted disposable income figure that takes into account the differences in social protection regimes of different

---

15 COM (1994) 670

16 The research project EXIOPOL, is working to set up an extended Input-Output framework for the estimation of environmental impacts and external costs of economic sectors, final consumption and resource use for countries in the EU; http://www.feem-project.net/exiopol/.

17 See also: Handbook on estimation of external costs in the transport sector, February 2008 http://ec.europa.eu/transport/sustainable/doc/2008_costs_handbook.pdf.

countries. Those figures[18] reflect better what people can consume and save than GDP per capita. The Commission services intend to increase use of these indicators.

4. CONCLUSION

Gross Domestic Product (GDP) is a powerful and widely accepted indicator for monitoring short to medium term fluctuations in economic activity, notably in the current recession. For all of its shortcomings, it is still the best single measure of how the market economy is performing. But GDP is not meant to be an accurate gauge of longer term economic and social progress and notably the ability of a society to tackle issues such as climate change, resource efficiency or social inclusion. There is a clear case for complementing GDP with statistics covering the other economic, social and environmental issues, on which people's well-being critically depends.

Work to complement GDP has been going on for years, at both national and international level. The Commission intends to step up its efforts and communication in this field. The aim is to provide indicators that do what people really want them to do, namely measure progress in delivering social, economic and environmental goals in a sustainable manner. Ultimately, national and EU policies will be judged on whether they are successful in delivering these goals and improving the well-being of Europeans. For this reason, future policies should be based on data that is rigorous, timely, publicly accepted and covers all the essential issues. The Commission intends to report on the implementation and outcomes of the actions put forward by this Communication by 2012 at the latest.

[18] However, these indicators still do not reflect the cost of reaching that level of income e.g. in the form of foregone leisure or activities that do not really increase consumption possibilities such as preventing or repairing damage caused by economic activity.