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“The ‘Beyond GDP’ Debate and Measuring Societal Progress in the Context of Sustainable Development”

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This ESDN Quarterly Report (QR) is a direct follow-up of the 6th ESDN Workshop in Berlin in early December 2010. It provides an overview of the various measurement approaches in the current “beyond GDP” debate that aim at measuring societal progress with more comprehensive indicators than the economic progress-oriented approaches. The aim of the QR report is to provide an overview of the debate at the conceptual and political level in the measurement initiatives in going “beyond GDP” as well as to outline the challenges ahead in the reforms towards measuring social progress. The QR is mainly based on the [ESDN Case Studies No.3](#) and [No.4](#), the [background paper](#) and discussions at the [6th ESDN Workshop in Berlin in December 2010](#) as well as the [report](#) summarising the debates at the workshop.

The QR is sub-divided in three sections: The first section includes a reflection on the different concepts, such as quality of life and well-being, welfare, environmental wealth and their different underlying measurement frameworks in measuring societal progress. It introduces Herman Daly’s Sustainability Triangle as a conceptual framework for demonstrating the relationship of these approaches from a more systemic perspective. The second section provides a comparative analysis of concrete international and national initiatives of government authorities and international organizations in measuring welfare and well-being in the context of the “beyond GDP” debate. The third section outlines three identified challenges at the academic, measurement as well as at the political level in introducing reforms in measuring welfare and societal progress, based on discussions during the 6th ESDN Workshop in Berlin on “Reforms for Measuring Welfare and Wealth in the Context of Sustainable Development”. The identified challenges are: firstly, the development of a “new economics” model; secondly, the implementation gap between new measurement approaches and their translation into political actions; thirdly, the challenges of choosing a set of indicators which best integrates information on quality of life, welfare and sustainable development and which can at the political level compete with GDP.

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Overview of the "Beyond GDP" Debate¹: Various concepts linked to distinctive measurement approaches

This section of the QR provides an overview of the various measurement approaches in the current "beyond GDP" debate that aim to apply more comprehensive indicators than the economic progress-oriented approaches. This includes a reflection on the different concepts such as "quality of life and well-being", "welfare", "environmental wealth" and their different underlying measurement frameworks. The concluding sub-section uses Herman Daly's Sustainability Triangle as a conceptual framework for demonstrating the relationship of these approaches from a more systemic perspective.

The current beyond "GDP debate" at the political, academic and societal level in a national and international context clearly demonstrates the need of complementing Gross Domestic Product (GDP) with other measures which postulates the need of reframing what societal progress is and what should be measured by it. The "beyond GDP" debate comprises a wide spectrum of stakeholders (international organisations, national government authorities, statistical institutes, NGOs, etc.). At the heart of this debate lies the concern of complementing, adjusting or replacing GDP, which serves as the measure of economic performance and market activity developed in the 1930s, with more adequate measures for overall human development, well-being and environmental wealth. For the latter aspects, other aggregated or single indicators, deriving from national accounts, are necessary in providing a more comprehensive picture on societal progress.

The debate on the GDP critique has already started 30 years ago, where the limitations of GDP have already been addressed by economists. They pointed out that GDP does not include a number of factors that determine peoples' and nature's well-being outside the market activities, such as the value of non-market goods (e.g. eco-systems, un paid labor hour, leisure) or distributional issues. It has reached the agenda of government authorities and, in particular, international organizations (see section two below) only recently due to the various crises (e.g. economic crisis, biodiversity crisis, climate change, etc) which have brought forward arguments for environmental and societal issues to be better linked to economic growth. Therefore, the GDP criticism debate has experienced a revival recently by expanding the focus of the "beyond GDP" debate from an academic debate to a political and also philosophical debate, e.g. what should lie at the heart of the progress (see also [ESDN Workshop Report](#)).

In the "beyond GDP" debate, various concepts of different well-established communities clash (e.g. well-being community, sustainable development community and welfare economics community). The linkages and differentiations of these concepts, such as well-being, welfare, wealth, and quality of life, are sometimes unclear as they are used interchangeably. As experienced during the ESDN workshop in Berlin, many participants were not able to choose what the most promising measurement approach is because of their different backgrounds. Therefore, the aim of this section is to provide an overview of

¹ The "Beyond GDP" debate is used in this report as an overarching term comprising the whole initiatives at the national and international level on measuring welfare and well-being.

the various concepts which are linked to the "beyond GDP" debate and their clear distinction from one another. The various concepts can be classified in three various approaches, when measuring societal progress: (1) the quality of life approach, (2) the welfare economics approach, and (e) the environmental wealth approach. All these various measurement approaches are already well established in academic circles, but the context has changed as they are only recently gaining momentum in the political debate.

Quality of Life and Well-being

Quality of life is used to evaluate the general well-being of individuals and societies. The term is used in a wide range of contexts, including the fields of international development, health care, politics, sociology and psychology. While the quality of life has long been an explicit or implicit policy goal, an adequate definition and measurement have been elusive (Costanza et al. 2008). However, a common understanding of this concept has been established over the years and comprises various dimensions along which subjective or self-determined experiences and objective conditions (e.g. standard of living, security in a society, education) play a major role. Quality of life comprises, therefore, various approaches which determine to explain this concept. The psychological approach focuses on subjective well-being and self-determined experiences of well-being. The philosophical approach, or capability approach, is more based on the "objective" conditions or domains of life and the extent and opportunities set provided to the individual along these domains (education) and the freedom to chose.

Subjective well-being is a well-defined concept approached from two general perspectives in psychology: the *hedonic approach*, which defines wellbeing as presence of positive feelings (happiness and joy) or the absence of negative feelings; and life satisfaction (*i.e.* a person's overall judgment about their life at a particular point in time). The *eudaimonic approach* focuses on meaning and self-realization and defines well-being in terms of the degree to which a person is fully functioning (Ryan and Deci, 2001). In the hedonic approach well-being is equated with pleasure and happiness (Ryan and Deci, 2001; Kahneman et al. 1999; Kuhlman and Farrington, 2010). The eudaimonic approach conceptualizes well-being in terms of cultivation of personal strengths and contribution to the "greater good" and the realization of one's true potential (Ryff and Keyes, 1995) and the experience of purpose of meaning in life (Ryff, 1989).

While psychological studies of quality of life focus on people's own feelings, other approaches broaden the information set relevant for valuing people's lives, beyond their self-reports and perceptions. The *objective approach of quality of life* is based on recognition of several dimensions contributing to a "good life" such as material standards of living (measured in economic metrics), healthy environment, satisfying job, security or time spent with family. Additional to these objective conditions, Amartya Sen argues that well-being ought to be not only about material goods or "basic needs", but the capabilities to pursue and realize the goals that an individual values, provided by the freedom to choose such as income, education and political freedoms (Sen, 1993). The *capability approach* criticizes the pure economic welfare theories, the latter one showing the human being only as a utility maximizer based on preferences shaped in markets. The capability approach, developed in the 1980s, is the rejection of the economic model of individuals acting to maximize their self-interest inconsiderate of relationships and emotions, and recognition of the diversity of

human needs and priorities (Sen, 1993). It focuses on human ends and on the importance of respecting people’s ability to pursue and realize the goals that he or she values (Stiglitz et al, 2009). Secondly, it is an emphasis on the complementarities between the various capabilities for the same person and their dependence on the characteristics of others and on the environment where people live (ibid.). This approach has contributed to the changing of thinking of human and also won wide resonance in the field of internal development economics in the 1990s.

The various approaches in quality of life and wellbeing, based on subjective experiences, objective conditions or capabilities, contribute in defining and understanding quality of life from various perspectives. It remains a normative decision to chose which approach is the most promising one (Stiglitz et al. 2009). However, despite the conceptual variation in quality of life, commonalities exist in four aspects. Firstly, quality of life is multidimensional, comprising various domains of life as work, health, environment, education, social connections, security, political participation etc. Secondly, along these dimensions, subjective experiences (qualitative data) and objective conditions (quantifiable data) for measuring quality of life are required. Thirdly, measures of quality of life include distributional and inequality aspects across the various dimensions and linkages of the various domains (i.e. environment with health). Fourthly, measures of quality of life can be distinguished across individuals, socio-economic groups, and aggregated at a societal level.

Welfare

Welfare is a more limited concept than quality of life and is only indirectly linked to sustainable development. Welfare derives from welfare economics. It is also used in political economy, linked with other concepts such as the welfare state² ([Gabler Wirtschaftslexikon](#)). However, the welfare theoretical assumptions have been criticized, for their limitations of the concept to market generation wealth or distributional effects and not to other non-market aspects, such as institutional performance, environmental issues in the creation of societal welfare. The trend of expanding the welfare concept of economics to also other branches of science relating it to environmental and societal issues is increasing (see [Ian Johnson’s \(Club of Rome\) presentation at the ESDN Workshop Berlin](#)). Ecological economics has defined new concepts of welfare.

Social welfare in traditional micro-economics analyzes economic wellbeing, based on the individual utility from economic activities. The individuals are the basic units for aggregating social welfare. While traditional welfare economics assumed that the economic well-being is evaluated based only on the consumer utility of goods and services, the individual welfare can be aggregated at the social level. The New Welfare Economics criticizes this assumption and assumes that individual utility can not be compared interpersonally, as each individual preference is unique and therefore preferences can not be aggregated at a societal level ([Gabler Wirtschaftslexikon](#)). Since the early 1980s, scientists have been interested in a number of new approaches for overcoming these short-comings. The most known ones are the *fair allocations* and the *capability approach* (Sen, 1993), demonstrated above.

² Welfare state intervenes with various social policies correcting market failures, such as income distributional effects through fiscal policies or supply with public goods such as shelter, health services etc

The theory of *fair allocations* overcomes some of the weaknesses of welfare economics by explicitly referring to equity criteria (Stiglitz et al. 2009). The basic idea, which is common to welfare economics, is that of weighting the various non-monetary dimensions of quality-of-life (beyond the goods and services that are traded in markets) in a way that respects peoples’ preferences. This approach requires choosing a particular reference point for each of the various non-monetary dimensions and obtaining information on peoples’ current situations and on their preferences with respect to these points (ibid). This approach avoids the pitfall of basing evaluations on an average “willingness-to-pay” (utility) that may disproportionately reflect the preferences of those who are better-off in a society and focuses instead on equality among all of its members (Stiglitz et al. 2009).

New approaches in welfare measurement, such as the fair allocation and capability approach are directed to the *objective conditions of quality of life* explained above (health, education etc). These approaches of welfare are well-suited to measure monetary and non-monetary dimensions and their references to these dimensions. Therefore, quality of life and welfare are sometimes used interchangeably. However, methodologically, welfare and quality of life have their differences. Welfare is a flow concept and can be aggregated, while quality of life, beside the objective conditions and capabilities, also includes the subjective experiences which can be assessed sometimes only qualitatively.

Environmental wealth and sustainability

The ecosystem (nature) and human systems (economy) are strongly correlated (TEEB, 2010). They are linked along two channels: (a) eco-system services and (b) resource management. Both systems can benefit or harm another. There has been a long academic and political debate in the 1970s on the linkages of these two systems. The most influential report has been the “Limits to Growth” report from Club of Rome which takes a “thermodynamic” approach to development, specifying the need of the economy to develop within the Earth’s carrying capacity (i.e. within biophysical limits) (Sedlacko and Gjoksi, 2009).

Environmental wealth, following the ideas of John Hicks means „living off the interest on natural capital“ without depleting the capital stock (i.e. consuming only an amount that is lower or equal than the replenished amount)(Sedlacko and Gjoksi, 2009). According to UNEP’s The Economics of Ecosystems and Biodiversity (TEEB) definition, environmental wealth is about maintaining the stocks of natural capital to levels which allow sustained provision of future flows of ecosystem services and thereby enduring human wellbeing (TEEB, 2010, 7). Natural capital is defined as all natural resources, land, biodiversity and ecosystems providing services like waste absorption (TEEB, 2010).

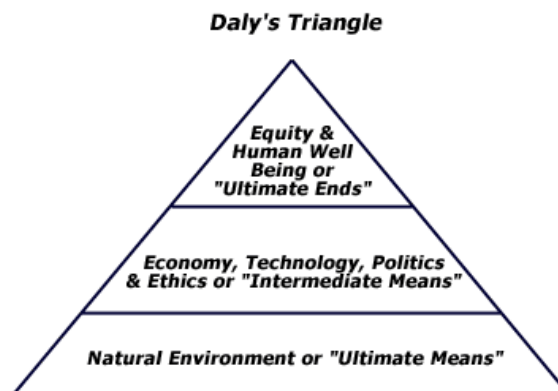
For measuring environmental wealth, the most frequently used approach is the “capital or wealth stock approach” (UNECE, 2009). The theoretical background is the idea that environmental sustainability requires the maintenance of a constant stock of “extended wealth” (Stiglitz et al. 2009). The stock approach helps to integrate sustainable development principles, such as inter- and intra-generational aspects, in the measurement of environmental stock. Environmental wealth measured on a stock and not in flow approach helps, identifying the critical thresholds of the stock of natural capital and “determining whether we can hope to see the current level of well-being at least maintained for future

periods or future generations, or whether the most likely scenario is that it will decline” (UNECE, 2009). Environmental wealth not only includes flow concepts, but also long-term trends (10-100 years) as compared to well-being and quality of life (5-10 years.)

There is a need for a robust single leading indicator or a few headline indices that can capture the changing state of nature and its implications for human well-being. However, the integrated approach in measurement remains still a challenge. In the capital stock approach, aggregation of heterogeneous items seems possible up to a point for physical and human capital or some natural resources that are traded on markets (Stiglitz et al. 2009). But the task appears much more complicated for most natural assets due to the lack of relevant market prices and the many uncertainties concerning the way these natural assets will interact with other dimensions of sustainability in the future. To find an integrated approach in the measurement with aggregated indicators, which should compete with GDP on sustainability issues, remains a challenge in the measurement reforms.

Conceptual framework: Daly`s Triangle of Sustainability

The three approaches of going “beyond GDP” presented above – quality of life and well-being, welfare and environmental wealth –should not be seen as loose, but interlinked conceptually with one another. Their relationship can be classified into a taxonomy, such as Herman Daly’s Triangle of Sustainability (Daly, 1973).



Quelle: Daly,1973

Daly reorders the elements and uses a triangle to describe their relationship to each other. It is also called the three “E-s”: Environment, Economy and Equity (Well-being). Also the various measurement approaches can be classified in this way. This could offer a useful integrative framework for clarifying the linkages and the subjects of measurement for each approach from a more systemic view, especially in the context of sustainable development.

Environmental wealth is the precondition for all other kind of societal or economic well-being. It implies that the current threats to our natural capital inevitably jeopardize the goal for a good quality of life for all citizens. Therefore, measuring environmental wealth should be the main priority for the future reforms on “beyond GDP” measurement and can be conceptually linked to this part of the triangle. The various attempts in measuring natural capital are well developed despite some of the shortcomings of sustainability issues.

However, environmental wealth measurement should be better linked to the social dimension (societal wealth). This framework illustrates that the economy is not an end onto itself, but serves as a vehicle for achieving ultimate ends; therefore, Daly also calls it "intermediate means". The economy succeeds to the extent that it conserves and restores ultimate means (the environment) and enables us to achieve ultimate ends (well-being).

The welfare measurement approach could be placed at this part of the triangle. Welfare can also be connected indirectly to the concept of sustainable development as it shares the inter-generational aspect and it links the social dimension (unemployment, education, health, social inclusion) to the economic dimension. It can, therefore, best serve for the measurements of the economic dimension (equal distribution on effect of income, public goods) and some social aspects (social inclusion, education) of sustainable development. It needs, however, a better linkage to environmental issues. Efforts of integrating economic welfare with non-market activities and environmental issue are done already through various indicators Indicator for Sustainable Economic Welfare and Genuine Progress Indicator should be further improved.

Methodologically, there are also some shortcomings of integrating welfare to the sustainable development concept. Firstly, the welfare concept in economics demonstrates that welfare is not dependent on a specific form of capital and can be maintained by substituting manufactured capital for natural capital. Thus, it is characterized of what is called the "weak sustainability" approach, where economic and natural capital can be substituted to achieve the goal of the highest possible utility of humans (Ekins et al., 2003). Secondly, welfare is a measurement based on flow accounts while sustainable development needs a stock approach (see above the environmental wealth sub-section) for considering thresholds on consumptions of resources.

In the apex of the triangle, Daly places "equity in terms of human well-being" as the "ultimate ends" of sustainable development. The quality of life and wellbeing debate comprising the psychological or the philosophical debate could be placed at this part of the triangle. Well-being and quality of life measurement can be concerned with the human "ultimate ends" which is well being and not economy. This is what a societal progress should be about. Therefore, this report emphasizes the need of better integration of quality of life and sustainable development in the sustainability framework and is critical about the Stiglitz Commission's recommendations of observing quality of life as a complementary concept to sustainable development, resulting in different measurement approaches.

The linkage of quality of life measurement and other concepts as sustainable development and natural environmental consists currently only indirectly. The quality of life concept is not directly linked to sustainable development, although quality of life is part of the overarching concept of sustainable development and should also in the measurement be integrated as such. It very well covers societal with individual, and societal as well as to a certain degree societal and economic issues, and should, therefore, stand at the core of sustainable development measures. Quality of life is also linked to natural environment in two ways: firstly, it plays an important role as an enabling condition for future generations wellbeing (i.e. well-being of future generations depend on current levels of well-being and usage of current assets of natural capital); secondly, it is identified as a quantifiable measure in the objective approach in relation to health and pollution. Moreover, it links societal issue

through distribution and inequalities aspects as also measurement along the various dimension, security, participation etc, and it includes the welfare outside the economic markets, such as education.

But it is not very well linked to the balance of environmental, social and economic issues. The problems that arise though concern the environmental aspects which are conceptualized in quality of life as enabling condition. In sustainable development, environment is the ultimate means on which quality of life is built on. Aspect of threshold and limits of consumption are not integrated in quality of life measurement. Therefore, indicators of current quality of life measurement are not well suitable for sustainable development measurement. The emphasis should be put on what can be learned from measurement of quality of life for sustainable development indicators and this is already done not in various countries (e.g. Austria, Germany, Belgium etc).

Measuring welfare and well-being

After a broad overview of the various concepts and their frameworks, this section provides a comparative analysis of international and national initiatives in measuring welfare and well-being in the “beyond GDP” debate. As the concern on measuring societal progress beyond economic growth is gaining momentum politically at the international and national level, this section of the QR will compare these initiatives and their orientation of the respective indicator approach (i.e. complementing, adjusting or replacing GDP). This section is subdivided in two parts. In the first part, it outlines the international initiatives and in the second part, the national initiatives based on Austria, Belgium, Finland, France and Germany. The last sub-section outlines shortly the impact of international initiatives on the national level. This section is based on the material provided by the [ESDN Case Studies No.3](#) and [No. 4](#) and the [Workshop Report](#) of the 6th ESDN Workshop.

International initiatives

The most important international initiatives which have undertaken efforts in going beyond the GDP indicator for measuring societal progress and well-being are: (1) the [European Commission’s Communication](#) “GDP and beyond – Measuring progress, true wealth and the well-being of nations” communication”; (2) the [Commission on the Measurements of Economic Performance and Social Progress](#) (also referred to as Stiglitz Commission), (3) the OECD’s Global Project on Measuring the Progress of Societies and Well-being, (4) the United Nation initiatives’, such as the [UNDP Human Development Index \(HDI\)](#) and [Economics of Ecosystems and Biodiversity \(TEEB\)](#), and (5) the joint UNECE, OECD and EUROSTAT Working Group on Statistics for Sustainable Development.

The majority of the initiatives have been initiated between 2007 and 2008. The only exception is the UNDP Human Development Index, which has been developed in the 1990s. The context, though diverse, shows similarity in using the economic crisis and the raised societal awareness on societal and environmental issues as a window of opportunity to launch the “beyond GDP” initiatives for measuring societal progress. *“As what we measure shapes what we collectively strive to pursue – and what we pursue determines what we*

measure.." (Stiglitz et al. 2009,9), the implementation of these initiatives might also have a significant impact on "(...) the way in which our societies look at themselves and, therefore, on the way in which policies are designed, implemented and assessed (...)"(ibid.). While the initiatives have initially aimed only to encourage debate and provide a signal to policy makers and the public to go beyond GDP (Euractive, 2007), international organizations have also progressively been more involved in technical engagement on measuring well-being and welfare. Good examples are the engagement of Eurostat in the EU Sponsorship group³, UNEP's TEEB in helping various stakeholders in meeting benefits and costs of biodiversity, the OECD's Global Project on Measuring Societal Progress and Well-being reorientation of focus towards providing guidance in measurement and developing methods and tools⁴ as well as the engagement of national authorities in the implementation of the Stiglitz Commission recommendation (e.g. France, Germany etc).

The majority of the initiatives mentioned in this QR consider GDP as a useful indicator for measuring economic growth. However, they also see its limitations in measuring general societal well-being and progress. Therefore, they recommend supplementing it with environmental, social and sustainability information in order to attain a diversified picture regarding societal progress and well-being. The only indicator which has managed so far to replace GDP and to find also political acceptance has been UNDP's HDI that offers a more comprehensive measure for human development by considering the economic dimension in it. A study of the European Parliament has emphasized that supplementing GDP, and not completely replacing it, is the more "realistic and acceptable option for going beyond GDP in the EU" (European Parliament Policy Department Economic and scientific Policy, 2007, 61).

As complementing GDP with other data seems politically also the most feasible way, the international initiatives attempt to supplement GDP with information at two levels: environmental and societal. The majority of the initiatives recommend at the environmental level two groups of instruments: (1) *setting environmental national accounts* either through physical flow accounts (air emission, material consumption), stock of natural capital accounts (fisheries, forests) or through monetary accounts on environmental protection systems (TEEB, 2010), or (2) *provision of environmental and societal indicators in relation to GDP*. Environmental aggregated indicators could be the Environmental Performance Index which will be developed soon at the EU level (European Commission, 2009). The second level of supplementing GDP is at the societal level with indicators on well-being and quality of life. Moreover, the emphasis is, on one hand, to better use the already existing national account data from a household perspective (such as household consumption, income distribution, inequalities) and, on the other hand, to better develop subjective indicator on measuring quality of life and wellbeing.

The initiatives mentioned above show following methodological similarities in their approaches and understanding of well-being:

- Well-being is as a multidimensional concept which should include not only the standard of living (based on national income measures), but also other aspects, such

³ The Sponsorship Group on "Measuring progress, well-being and sustainable development", co-chaired by Eurostat and FR-INSEE (National Statistical Institute of France), with the participation of 16 EU Member States as well as OECD and UNECE.

⁴ The OECD statistics directorate has compiled a framework for progress that could provide a useful starting point for anyone engaged in an initiative to develop a set of societal progress indicators (OECD, 2010)

as health, education, social relatedness, environmental conditions etc. The differences among the initiatives are more in the framework of these initiatives: some initiatives put the ecosystems at the heart of human well-being (UNEP TEEB), others rely more on the human development approach and less on eco-systems (UNDP HDI). The other initiatives (Stiglitz Commission, OECD Global Project, European Commission “GDP and beyond”) lie somewhere in between these two perspectives.

- For measuring well-being, objective conditions and subjective experiences are considered as important approaches in the measurement. Objective conditions are considered as domains of life which influence the subjective experiences of quality-of-life to a certain extent (health, education, security, etc.).
- As well-being is multi-dimensional, the initiatives have proposed not to offer a composite indicator but an indicator set as there are issues, such as subjective experiences of individuals, which cannot be aggregated in one number. However, for communication reasons, composite indicators (such as HDI and the recently developed quality-of-life indicator SALY – Satisfaction Adjusted Life-Expectancy indicator) are validated as useful for raising political and societal awareness on progress and well-being.

All initiatives integrate distributional and equality indicators development for measuring disparities among, nations, regions, societal groups or gender.

Sustainable development has been regarded as a concept which needs complementary indicators to well-being indicators as it includes inter-and intra-generational aspects (i.e. temporal questions and linkages across the various domains). The Stiglitz Commission criticized the majority of proposals which have been made so far for measuring sustainability in quantitative terms only (Stiglitz et al. 2009). Due to various methodological problems, the Stiglitz Commission focuses its recommendations more on economic and environmental sustainability indicators. Initiatives such as UNECE, Stiglitz Commission, European Commission “GDP and beyond”, and OECD Global Project have explicitly recommended the further development of sustainable development indicators based on the “wealth or stock based approach”. Useful for its communication would be dashboards on SD which should be interpretable of variations of some underlying “stocks”.

Concluding this chapter, we would like to highlight that the variety of international initiatives demonstrate that “going beyond GDP” is not only a crucial aspect of finding the right approach in measurement but becomes also a political and societal debate in which international organizations can offer useful guidance for the national authorities.

National initiatives

Various national government authorities have provided answers to the international debate on the “beyond GDP” debate. This section outlines shortly the initiatives that have been applied in Austria, Belgium, Finland, France and Germany and the undertaken reforms of well-being measurement.

Several EU Member States – in particular Austria, Belgium, Finland, France and Germany – have been very active in defining indicators which best measure well-being and societal progress in the context of the “beyond GDP” debate. All these countries have recognized the weakness of the GDP indicator as a proxy for societal progress. However, they have also recognized the impossibility or challenge to measure well-being or sustainable development with a single indicator.

The initiatives vary in the measurement and conceptual frameworks and, therefore, are based on various approaches can be sub-divided in three groups. There are initiatives which measure welfare and well-being in the context of sustainable development indicators (Austria, Belgium, Germany). Other countries have undertaken reforms on measuring well-being from a more subjective and societal perspective (Austria, Belgium, Finland and France). Again other countries have even attempted to replace GDP with new indicators, such as the National Welfare Index in Germany.

The first group of country (Austria, Belgium and Germany) has already started with the development of the sustainable development indicators (SDIs) some years ago as part of the monitoring process of their respective National Sustainable Development Strategy (NSDS). However, in the framework of the current beyond GDP debate triggered at the European level, these countries re-emphasized the SDIs appropriateness for also measuring well-being or societal progress. Austria, for instance, has undertaken efforts to expand the concept of economic welfare in the context of sustainable development by also including non-monetary aspects crucial for human development approach of welfare (by including indicators on environment, “wealth in time”, and health and distributional indicators). Belgium also regards societal progress as one of its strategic objectives in its Federal Plans for Sustainable Development. In its fifth federal report, it presents a table of 88 indicators illustrating to what extent living conditions in Belgium are heading towards strategic objectives of sustainable development. Additionally to the 88 SDIs, the Federal Plan introduces synthetic indicators for policy purposes, such as introduction of environmental satellite accounts, HDI and the Ecological Footprint. Germany’s SDIs also provide a good set of indicators for measuring societal progress (see [ESDN Workshop report](#)).

The second group of initiatives focuses on the measurement of well-being based on subjective experiences. They supplement GDP with societal indicators. These national initiatives aim to provide answers to the international discussion on the need to establish well-being indicators which are more comprehensive than GDP. France has, therefore, started to implement the 12 recommendations of the Stiglitz Commission which go beyond quality of life and well-being. Austria has launched in 2009 a study on well-being in Austria, where measurement is based on the SDIs complemented with subjective data. Another example is the “WellBeBe” Project in Belgium, where the Belgian Federal Science Policy Office is looking into theoretically sound and democratically legitimate indicators of well-being in Belgium (WellBeBe) within its Science for a Sustainable Development Programme (SSD). The aim is to construct an alternative indicator to GDP, based on a dynamical conception of well-being, which considers the individual in his whole life-cycle and which includes the notion of the social structure through the concept of “life chances”. Finally, the Findicator project in Finland, launched in 2009 by the Prime Minister Office and Statistics Finland, can be mentioned as a national answer to the international discourse on “beyond GDP”.

Finally, one of the initiatives which has tried to provide a more comprehensive indicator on social welfare than GDP is the German "National Welfare Index" (NWI). In the NWI, welfare is understood not only as the welfare created in markets, but also through non-market activities, such as education, health, prevention of criminality costs etc. The research on the NWI indicator is more strongly connected to the ecological economics framework and less to the well-being discussions on happiness or life satisfaction (Diefenbacher and Ziehschank, 2008a, 5). Although the measurement of sustainable development is much more complex than welfare measurement, the study on NWI does not strictly separate the two concepts (sustainable development and welfare) from one another, and recommends integrating the NWI in the national concept of sustainable development (Diefenbacher and Ziehschank 2008).

Impact of international on national initiatives and recent developments

The international level had a substantial impact on the national level. The countries are collaborating closely for further improving the various measurement approaches. The European institutions are providing a guidance in the political and measurement debate to the Member States. One example is the Eurostat Sponsorship group, co-chaired by Eurostat and FR-INSEE (National Statistical Institute of France) with the participation of 16 Member states as well as OECD and UNECE. The sponsorship group is establishing four taskforces: three on the topics of the Stiglitz Commission report (GDP critical issues, quality of life and environment and sustainability issues) and one on the coordination. Within this sponsorship groups, roundtables at the national level are established with other stakeholders. However, based on what has been discussed at the 6th ESDN Workshop, further assistance and guidance of the European Commission to the Member States on this debate is expected.

Moreover, national roundtables to discuss measuring social progress are also established as a response to the OECD's Global Project on Measuring Societal Progress and Well-being. The national roundtables are contributing to the development of innovative research projects and measures under the coordination of the OECD and two of its other horizontal OECD projects: Green Growth Strategy and OECD Innovation Strategy. In Germany, an inquiry commission on "welfare and economic growth" has been launched from the German government. The aim of this commission is to detect what economic growth is from a societal perspective and develop a holistic indicator on welfare and progress ([see link](#)).

The Stiglitz Commission report has been one of the most influential reports in this debate at the national and international level. At the national level, France has already started in 2009 the implementation of the Stiglitz` Commission recommendations. Moreover, the German-French cooperation under the mandate "Sarkozy-Merkel" has prepared a report on "What is economic growth in the 21st century and what is prosperity for industrialized developed nations" by taking reference to the Stiglitz Commission`s report results. In 2010, the German French Commission has commissioned an [expertise opinion](#) on measuring sustainable economic growth and social progress, also based on the review of the Stiglitz Commission recommendations. The report offers an indicator set, which provides a balance between precise and comprehensive information on societal progress and a concise set of indicators.

Current and future challenges in the “beyond GDP” debate

As the beyond GDP debate includes academic circles of various disciplines, various political communities (sustainable development, welfare economics, quality of life) and many civil society actors, a systemic approach which links these communities in a systemic way is needed for moving towards the right reforms on measuring welfare and societal progress and offering policy solutions.

Based on the 6th ESDN Workshop in Berlin in early December 2010 on “Reforms for measuring welfare and wealth in the context of sustainable development”, three challenges seemed to be of particular importance for a systemic approach in future measurement reforms: firstly, gaining deeper insights into the new economics model for better designing policies; secondly, the implementation gap between new measurement approaches and their translation into political actions for moving towards true social progress; thirdly, identification of the most promising indicator approach for policy-makers on measuring societal progress and shaping policies. The first part of this section outlines the efforts of Club of Rome in building the “new economics model”. The second part introduces a systemic approach in interlinking better the political actors (users) and statisticians (producers), based on recommendations made at the 6th ESDN Workshop. The last section outlines the challenges and difficulties various participants had choosing the right indicator approach and introduces the undertaken efforts in this direction from the German-French Commission. This section is based on the ESDN [Workshop Report](#), the [German-French Commission report](#) (CAE/SVR, 2010) and the [paper](#) prepared by Ian Johnson for the Annual Meeting of the Club of Rome.

New economics of growth, wealth and real values

This sub-section is based on the presentation by Ian Johnson (Club of Rome) on “The new economics of growth, wealth and real values: towards a new economics for a global society” at the 6th ESDN Workshop in Berlin on 2-3 December 2010.

The Club of Rome, as one of the pioneers in thinking about economic growth and the limits imposed, has currently taken the lead also in working on the agenda of “new economics” in its working programme. The current economic models of thinking has been criticized for its outworn theoretical assumptions in not capturing new phenomena, new market opportunities as well as recent societal, political and economic developments of the world of today. These shortcomings have been taken up by many scientists and a nascent movement to review the current economic theory has begun. Economics exists in a wider spectrum of human societal activities: ecological, political and social and increasingly the lines are blurred. Moreover, economics has become more specialized and interdisciplinary. According to Ian Johnson, the economics of today has become “unfit of purpose” as it fails to address the real issues of today. Therefore, in this growing complexity and expansion of new fields of economics, the macro micro models are no longer valid.

The fault lines of current economics of today comprise eight important aspects: (1) growth and wealth, (2) integration of better time values, (3) evaluation of natural capital, (4)

integration of pollution costs; (5) employment; (6) new markets; (7) social capital; (8) risk and uncertainty and (9) system thinking.

The first criticisms of the new economics model concerning the reflections on growth and wealth relies on several aspects: The first aspect concerns the usual GDP-criticism issues of ignoring economic externalities (the positive benefits of unpaid work and distributional effects, costs of unemployment), including environmental costs as benefits (depletion of natural capital, destruction of forests). Secondly, the new economic model criticizes the current thinking of economic growth as "linear and non-binding", relying on the assumptions that technological progress would provide answers to natural resources scarcity and also efficiency aspects. Since several years, ecological economics is academically contributing to a better linkages of geo-physical assets and human welfare within the "earth's carrying capacity". According to the "limits to growth" approach, this linear thinking of growth reflected also in policies, should be changed, with "forward thinking policies", integrating the responsibilities of wealth creating of today for the future generation and the capacities in the future.

The second line of criticism concerns the wrong reflection of time in the short-term oriented perspective of the political sphere and general economic thinking. This is generated from the economic interests on high discount-rates, and short political terms are becoming the main obstacles in sustainability issues. They have contributed to the marginalizing of long-term gains and activities that require long-term planning. The third aspect of criticism comprises the efforts of linking economic thinking (what is accounted to contribute to growth and wealth) with ecological thinking for better evaluating natural capital in economic terms (depletion of natural assets). The criticism relies also on the political reluctance of integrating and incorporating the positive contribution of natural capital to wealth and growth on the political agenda. Additional aspects, which should be dealt with more carefully in the new economic model are the costs of two big market failures: climate change and unemployment. In the field of climate change, further research needs to be conducted not only on its costs but also on the benefits to economic welfare.

The employment dilemma is described as the essential debate about new economics for several reasons: Firstly, it raises a philosophical issue of economics, if the primary goal of the fulfillment of human aspiration is ensured through the right of having a job. This goal might find disapproval by neo-classical economists, whose definition of full-employment requires some level of unemployment. For tackling unemployment issues, new models such as the green growth model, described as a win-win strategy by politicians and some economists, should still be better evidenced in the link between green growth and social issues, such as job generation and poverty reduction. The fear exists that technological substitution through green technologies might not result in higher employment opportunities.

Furthermore, the new economic model criticizes the current markets' inability in capturing real economic values, due to the unrelated market prices to real economic values, causing an illusion of wealth which is unsustainable and "anti-economics". This should be in future better organized by repositioning economics as an important driver of fair equitable markets. Linked to the question of real values remaining unrelated to markets is the issue of considering better social capital in economics. Current economics are based on labor capital ratios which find the correct optimum between the cost of physical capital and the price of

labor. As the world is growing more complex, other forms of capital are becoming to be recognized as important to our understanding of economics. Additionally to natural capital and its effects on growth and wealth, social capital is becoming increasingly important. Some attempts in this direction are current research on linkages of economics with happiness and quality of life. The last aspects of criticism concern the lack of a system-thinking perspective. According to Ian Johnson, through a systemic thinking, the failure of the deterministic linear way of assumptions from economics could be encountered by leading to social and environmental quality improvements and to a higher risk management.

The new economics’ agenda aim is twofold: firstly, it links the various economic disciplines in an inter-disciplinary way; secondly, it tries to relate it to a more philosophical view purpose of economics. Its central role is in providing an ethical basis for maximising real wealth and sustainability. Based on the fault lines of current economics, Ian Johnson presented the need of new economics based on following guidelines:

- new “ethics rule-book” including transparency, accountability, risk management;
- new markets for a sustainable world to include following aspects:
 - Sustainable goods and services (carbon, water, forests, etc.)
 - Social capital goods and services (security, adaptation, employment)
 - Long and patient capital
 - Public good component (public and private risk and reward returns);
- new assets creation;
- new quality requirements.

Improving implementation through enhancing the user producer dialogue

As the attention in the current “beyond GDP” and measurement debate has been directed towards the reforms to be undertaken at the methodological level, less thought was given on how to translate what is being measured in political actions. For overcoming the implementation gap, the 6th ESDN Workshop offered a good platform to discuss various recommendations in this direction. The workshop contributed to a better identification of the political functions of indicators as to identification what are the challenges for enhancing the producer (statisticians) and user (policy makers) dialogue.

According to Ian Johnson, so far no approaches mentioned in the ESDN Workshop (which correspond to the ones outlined in section two) properly addressed the policy and market instruments for translating those value measures in economic policy and decision making. He uses the term of the “intellectual death valley” for describing the process where there is a large and growing amount of literature on how to measure certain aspects (e.g. natural capital), but rarely any thought is given on how to design policies that ensure that what we measure is embedded in the decision making process. In the workshop, researchers responded with positive answers for hindering an intellectual death valley. They confirmed that researchers tended to fine-tune for too long research results instead of being satisfied with an “optimal degree of impreciseness” in the research results and, therefore, better approaching politicians rather than not address these issues at all at the political level.

As measuring welfare is not only about indicator development, the political functions of the indicators play an important role in the debate. They can help in better monitoring the various policy goals and contributing to better evaluation of the policy measures-implementation (environmental quality). Moreover, in order to move towards a sustainable economy based on real values, the indicators might also be helpful in assisting the policy makers with identifying also concrete new goals and improving the policy learning process.

The workshop identified various useful recommendations for making better use of the political functions of indicators. The recommendations were directed to the improvement of the user and producer dialogue in the various measurement approaches. The participants identified various obstacles impeding the improvements of this dialogue on both sides.

Based on the producer side, Oliver Zwirner (DG Environment, European Commission) mentioned that statisticians had the tendency to focus first on the development of indicators than present them to policy-makers. Moreover, various conflicts of interest regarding the indicator approach also impeded their better usage from policy makers. While statisticians are interested in reflecting the data on broad indicators sets, politicians would preferably use some composite indicators in policy making. Very broad indicators sets would tend to be disliked from policy makers. The third impediment concerns the communication of these indicators. Based on the workshop results, statisticians seem also not to properly tailor the presentation of indicators in a more “easy to understand format” for politicians.

Based on the user side, impediment in the dialogue seemed to be the policy-makers’ reluctance to use certain data, which are unfavourable for their policies as they would show bad performance on certain policies. Moreover, according to Ian Johnson, political opposition exists when it comes to push certain reforms through, such as fixing accounts with evaluation of natural capital. This reluctance is also embedded in institutional interest behind the indicators. Reforms of measuring welfare and societal wealth would also imply a budget shift on cutting old statistics and reinvest funding in new indicator development.

The result of the workshop recommendations was to tackle better these challenges through a more systemic way of setting (indicator/policy target) priorities, where statisticians should address policy-makers before developing indicators. A better communication of political priorities, as of availability and relevance of data reflecting what needs to be measured towards these reforms should be promoted. The “systemic way” of dialogue between statisticians and policy-makers is expected to result in a better understanding of the implicit values behind indicators and an optimal size on the indicator approach (indicator set/composite indicator). Based on the recommendations, statisticians together with policy-makers, should address also budget and funding issues by deciding together based on Herman Daly’s Triangle⁵ simultaneously for investing into further research and development of indicators and for formulation action.

⁵ Herman Daly’s Triangle was presented in one of the working groups in the second day of the ESDN Workshop.

Most promising approach in indicators for measuring societal progress

The discussion on the user and producer dialogue was focussed on how to improve the use of indicators by policy-makers and how to contribute to a better translation of what is being measured in policy actions. This section outlines some challenges of the participants in identifying the most promising indicator approach. The work of the German-French Commission on measuring welfare and societal progress is mentioned as an attempt in providing first pragmatic answers to what and how the indicator set towards measuring true social progress should look like.

Based on the national and international initiatives presented at the ESDN Workshop, participants were not able to decide on the most appropriate or promising indicator set complementing GDP. Nevertheless, participants seemed very interested in clarifying the strengths of the indicator approaches and identifying their contribution to the reforms on societal progress measurement. Moreover, it was unclear if parallel frameworks for the various concepts should co-exist (well-being or quality of life indicators, new indicators arising from GDP criticism and environmental wealth and sustainable development indicators) or if the various concept should be linked conceptually in one framework. According to some participants, as the decisions on indicators and what to measure remains also a political question, politicians should better identify in a societal discourse what the strategic priorities are in order to guide the way. A better landscape structure (which target groups, sectors, models) for the reforms of measuring welfare and well-being in the context of sustainable development is then needed.

Moreover, participants had not only difficulties in identifying the most promising approach, but also in identifying differences of some new national measurement approaches and already existing data on SDIs. As for the activities in Finland, participants had the need to clarify the difference of these indicators and SDIs. As a result of the discussion, participants suggested a better conceptual framework for indicators (linkages to SDIs) as a better communication of differences of these indicators to the already existing one. Some participants shared the fear that as the beyond GDP debate is high on the political agenda, funding is also oriented towards development of new indicators and not of better using the already existing indicators.

The discussion on the use of SDIs demonstrated, however, difficulties in choosing some composite indicators which should compete with GDP. Based on the workshop results, sustainable development requires a set of indicators, as it remains a very complex issue, which cannot be presented in one synthetic indicator. Moreover, within the SDIs sets, difficulties exist to find a way out of how to weigh indicators when policy targets were conflicting. Moreover, the questions remains how to use the already existing data of SDIs on non-market issues (e.g. health, education) and better link it to welfare measurement based on GDP. For instance, in Germany, when discussing the SDIs, the equal weighing of indicators along the three dimensions of sustainable development seemed problematic as well aspects on the transparency of how SDIs are weighted.

Some of the concerns brought forward at the ESDN Workshop in finding a way out of the debate on the politicians' need on composite indicator vs. the need of precise and comprehensive information based on large sets, as well as equal balancing of various

dimensions within the SDIs, have been recently addressed in the French-German Commission through an expertise opinion on the Stiglitz Report and recommendation of an indicator set useful for policy makers. The German Expert Advisory Commission on Economic Progress and the French Conseil d'Analyse Économique (CAE) have published an [expertise opinion](#) (CAE/SVR, 2010) report on economic performance, sustainable development and quality of life. This report reviews the Stiglitz recommendations. Its aim is twofold: firstly, to find a useful indicator approach for policy-makers which sets a balance between comprehensive precise and robust information on social progress and on the other side, a limited number of indicators, and secondly, to shift the measurement focus away from economic performance measures to non-material well-being.

The main results of the report show that three dimensions, such as economic performance, quality of life and sustainable development cannot be aggregated in one or some synthetic indicators. Although the development of aggregated indicators would be easy to communicate, it would not provide useful and comprehensive information to policy-makers in order to shape policies towards true wealth. Therefore, they offer per dimension (quality of life, sustainable development and economic progress) some indicators which are best suited for comprising enough information for providing signals on the economic and social progress and sustainability issues (financial, economic, social and environmental aspects). The sustainability indicators try to integrate effects of the three dimensions. The report recommends the use of a “dashboard of indicators” for better communication where all three dimensions should be clustered in an “easy to-understand-format” for policy-makers. Each indicator should not only show current, but also on future trends. This report emphasizes that its approach is open to debate to academic and social sciences as well as societal debate in order to understand if these indicators are the ones that best capture what the societal defines as progress.

The measurement debate as mentioned at the beginning of this QR is not only about measurement, but goes beyond it, expanding its focus to the political, societal and also philosophical level. In order to tackle reforms on measuring welfare, quality of life, well-being and sustainable development, a “systemic approach” in the reforms through the various levels of the debate is needed:

- *at the conceptual level:* a new systemic approach to economic models is needed for integrating all shortcomings of current economics and also for better shaping policies towards true wealth (Herman Daly's Triangle of Sustainability);
- *at the political and statistical level:* a systemic approach in the user (policy-makers) and producer (statisticians) dialogue was identified as useful for a more systemic way of setting (indicator/policy target) priorities in order to identify not only what needs to be measured (politicians), but also what can be measured (statisticians);
- *at the political and societal level:* more participatory and democratic processes are needed for feeding the measurement and political debate on social progress with bottom-up (civil society) opinion and what societal progresses should be for the societies in the 21st century;
- *at the national and European level:* a more coherent and systemic approach of coordination and guidance in the reforms through the European institutions would be helpful for providing further incentives and political signals to national government authorities.

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