Beyond GDP: Global and regional development indicators

SUMMARY
The 'Beyond GDP' approach considers GDP (gross domestic product) insufficient to capture the multidimensional nature of progress and promotes the use of alternative indicators in policy. Although commonly used as an indicator of well-being, GDP is a measure of economic performance, reflecting production expressed in monetary terms. It does not account for social and environmental costs, nor does it reflect social and territorial inequalities. The recent crisis revealed that GDP figures alone can mask problems accumulating in the economy. Alternative indexes can enhance monitoring and guide policies towards balanced economic, social and environmental goals.

The choice of indicators matters, as this has an impact upon policy design, monitoring and evaluation. To date a variety of alternative indicators have been developed by international organisations, statistical offices and NGOs (for instance, the Human Development Index and the Ecological Footprint) and are increasingly being used in policy-making, including at EU level.

At the regional level, versions of global indexes exist alongside regionally designed indexes, but the availability and reliability of data requires improvement. In the EU context, the 'Beyond GDP' debate has been re-ignited in connection with the current reflection on the post-2020 cohesion policy framework. Additional regional indexes, such as the EU Regional Social Progress Index released in October 2016, can help support result-orientation, improve monitoring performance and enable a more comprehensive assessment of territorial development.

This is an update of an earlier briefing published in February 2016.
Introduction

The 'Beyond GDP' approach promotes bringing alternative indicators into policy-making in order to better reflect the multidimensional nature of progress and societal development. Indicators matter as they influence various aspects of policy-making – the choice of objectives, monitoring implementation and evaluating results. What is measured affects policy decisions and actions. The 'Beyond GDP' approach recognises the limits of gross domestic product (GDP) as a measure of progress, as it does not account for the environmental and social costs of growing production, it does not reflect social inequalities and – even though commonly used as a proxy – it does not necessarily equal the level of well-being. It also emphasises that growth alone cannot deliver wider benefits to society due to market failures (such as income inequalities) and negative externalities (such as pollution). Therefore, targeting 'good quality' growth aims to ensure that growth is equitable, sustainable and improves well-being. Alternative 'Beyond GDP' indicators are intended to support more integrated policy-making, balancing the goals of economy, society and the environment.

Although various data sets and indexes have been produced over decades by scholars, international organisations and national statistical offices, attempts to include them in policy-making are fairly recent. Studies show that awareness of alternative indicators has been low, and the production of indicators themselves encounters methodological and conceptual challenges. The international efforts gained momentum in 2007 when the EU hosted a 'Beyond GDP' conference, co-organised with the Club of Rome, Organisation for Economic Co-operation and Development (OECD) and the World Wide Fund for Nature (WWF). That conference provided an opportunity for debate among various stakeholders – policy-makers, economists and statisticians, the media, academia and civil society. In 2009 a report (known as the Stiglitz report) was prepared at the request of the French government by the Commission on the Measurement of Economic Performance and Social Progress. Its findings and recommendations became a seminal reference point in the 'Beyond GDP' debate, laying conceptual groundwork for the use of alternative measures in policy. Moreover, an EU-funded research project, Brainpool ('Bringing Alternative Indicators into Policy') resulted in a series of reports exploring existing indicators, their producers and users, as well as the potential for and barriers to alternative indicators entering mainstream policy-making. In recent years, alternative indexes are increasingly being integrated into policy-making, at international, EU and regional level.

Advantages and limitations of GDP

What is GDP?

Gross domestic product (GDP) is a monetary measure of economic activity, which captures the value of goods and services produced by an economy during a given period, typically a year or a quarter. As it measures economic output expressed in monetary terms, it allows the estimating of economic performance and to measure the size of an economy. Although originally not intended for this purpose, GDP per capita has become a universal measure of living standards and well-being, as GDP growth (i.e. economic growth) is usually associated with higher incomes, higher consumption and rising standards of living.
Advantages of GDP
GDP is a useful and reliable tool for comparison of economic performance both over time and between countries and regions. It is based on widely available statistics, dating back several decades and using established methodologies for calculating national accounts.\(^2\) Its additional advantage is timeliness, as it is published at regular three-monthly intervals, which makes it a useful policy-making tool, able to respond to short-term policy-making cycles. Moreover, it is simple and straightforward, since it consists of a single number. This makes it appealing and easily understandable for the general public, the media and policy-makers.

Limitations of GDP
While GDP is a simple, straightforward and statistically reliable measure, it can only capture material well-being. It does not account for social and environmental costs (such as pollution or crime), nor does it reflect social inequalities or regional disparities. Paradoxically, it can count expenditure on socially or environmentally harmful activities as positive (like spending related to car accidents or natural disasters), while ignoring non-market transactions, such as domestic labour, volunteering and family care. As it measures only material consumption in monetary terms, it fails to capture other aspects of well-being and quality of life (such as work–life balance, health and education). As the recent crisis demonstrated, it can also mask economic problems accumulating in the economy and fail to deliver expected outcomes, for example, despite nominal GDP growth, personal incomes may fall.

Alternatives to GDP
Types of indicators
To address the above-mentioned shortcomings of GDP, a variety of alternative indexes have been developed by international organisations, national statistical offices, national and regional authorities, and NGOs. They can be divided into several categories. Depending on the methodology of calculation they can take the form of a single indicator (like the GINI coefficient, measuring income inequality); a dashboard – a set of indicators (such as the Sustainable Development Indicators); or a composite indicator comprising several sub-indicators aggregated to a single value (for example the Human Development Index, encompassing three dimensions – health, education and income). In terms of data sources, some indicators are based on 'objective' statistics collected by national or regional statistical offices and subject to macroeconomic modelling, while others are based on 'subjective' surveys among sample populations investigating 'life satisfaction', 'happiness' or 'quality of life' (for instance parts of the European Quality of Life Survey – EQLS).

In terms of their relationship to GDP, alternative indexes may be viewed as replacing, adjusting or supplementing GDP. Indexes replacing GDP typically include an income component, those supplementing GDP use dimensions other than income, while those adjusting GDP add and subtract other factors. Examples of 'adjusting' indicators include the Genuine Progress Index (GPI), Index of Sustainable Economic Welfare (ISEW) and Adjusted Net Savings (ANS). Indicators can also be classified according to 'themes' – some focus on social issues (EU labour force survey – EU-LFS), others on environmental ones.

![Figure 1 – Better Life Index](https://example.com/better-life-index.png)

Source: OECD, 2016.
Beyond GDP: Global and regional development indicators

(Ecological Footprint), yet others on institutional ones (the Freedom Index). Some indexes attempt to give a comprehensive overview of progress based on several dimensions aggregated in a single figure. An example is the Better Life Index created in 2011 by the OECD and covering 11 aspects, including income (see Figure 1). Another multi-dimensional index, the Social Progress Index (SPI), was produced in 2013 by the Social Progress Imperative. It includes a variety of social and environmental indicators (see Figure 2), without an economic dimension. As such, it can be considered complementary to GDP. The European Commission's 'Beyond GDP' website provides an extensive list of indicators in various categories.

Indicators at EU level

Several sets of indicators are used for implementing and monitoring EU policies and strategies. The Europe 2020 strategy, established in 2010 to guide overall EU policy in the current decade, includes comprehensive targets with economic, social and environmental dimensions (see Figure 3). It is strongly integrated with other EU policies, including cohesion policy and the EU’s economic governance framework. Since 2014, a scoreboard of key employment and social indicators (unemployment, household disposable income, at-risk-of-poverty rate and income inequality) is used to support the social dimension of the Economic and Monetary Union by monitoring employment and social trends in annual reports (Joint Employment Report linked to the Annual Growth Survey). Sustainable Development Indicators (SDI) have been developed to monitor the EU Sustainable Development Strategy adopted in 2001. They include GDP, as well as dimensions related to health, employment, social inclusion, environment and governance. Similarly, the Resource Efficiency Scoreboard is used to monitor progress towards the 2011 'Roadmap to a Resource Efficient Europe'. The specific indicators include biodiversity, the state of natural resources, waste, green taxes, food, eco-innovation and energy.

Challenges and opportunities

Data quality, reliability and availability are some the biggest challenges facing the producers of many alternative indicators. Some indexes date back just a few years, which may pose a problem for tracking their evolution and interpreting outcomes. Some indexes are published irregularly or with a substantial time-lag. In the context of policy-making this is an important issue, as data must be as recent as possible, timely and relevant. In some cases, the quantification of concepts such as 'well-being', 'sustainability' or 'quality of life' is problematic, as these may be difficult to express in numbers and there is no consensus on what they mean. Similarly, attempts to 'adjust' GDP (by subtracting...
environmental or social costs from the final figure) run into the problem of monetising issues that are difficult to express in monetary terms. In addition to methodological problems (for instance measuring qualitative vs quantitative data), there are also ideological issues in deciding on common measures and, in the case of composite indexes made up of various dimensions, determining the relative weight of components. This necessarily includes value judgments and normative choices, which may be considered arbitrary. Lastly, additional human and financial resources are necessary to develop new indexes or enhance existing statistics. However, existing statistical data and available indexes offer wide choice for use in policy-making, with some indexes produced regularly and based on well-established methodologies (the HDI, for instance). They can be used to guide specific policy areas, to set specific objectives, facilitate an evidence-based policy approach (such as through assessment of policy impact), or become integrated in the regulatory framework, for example as part of obligatory evaluation procedures.

The EU regional dimension

Regional development in the EU

As part of its efforts to strengthen economic, social and territorial cohesion, the EU aims to promote 'overall harmonious development' and at 'reducing disparities between the levels of development of the various regions and the backwardness of the least favoured regions' (Article 174 of the Treaty on the Functioning of the European Union – TFEU). This broad description does not provide details on the type of regional disparities to be reduced; however, the goal of economic, social and territorial cohesion suggests a comprehensive approach to regional development. This is confirmed by the thematic concentration of regional funding, namely the selection of investment priorities supported by EU funds (such as research, environment, employment, education and training). The thematic objectives of cohesion policy are closely linked to the Europe 2020 strategy, in that the priorities of European Structural and Investment Funds (ESIF) support the achievement of Europe 2020 objectives, and documents outlining relevant national and regional strategies have to demonstrate how specific actions support the strategy.

GDP and EU regional funding

Despite these comprehensive objectives, cohesion policy funding in the 2014-2020 programming period is allocated on the basis of GDP per capita as the only criterion for eligibility of regions. The 2014 Sixth Cohesion Report mentions the intention to explore using additional indicators in cohesion policy; this was also stated in the 2008 Green Paper on Territorial Cohesion and the European Commission's 2010 communication on the future of cohesion policy. The use of 'Beyond GDP' indicators has also been supported by the Committee of the Regions (see section on EU institutions below) and debate on introducing changes in this regard in the post-2020 cohesion policy framework is continuing.

Regional indicators

The use of new indicators will require a consensus on their choice as well as harmonised methodologies and improved statistical practice at regional level. Data availability and reliability is crucial, preferably in a time series allowing for comparability of results over time. Smaller units often present the problem of smaller samples, and require the use of proxies, demanding enhanced statistical capacities. Spatial considerations are important when applying new indicators, to avoid running into the same problems that GDP presents, especially hiding inequalities, distribution of wealth between different
population groups and income available to households of people living in a region. For instance, some regions have high GDP levels generated by the activity of people who work but do not live in them. This is especially prominent in commuter areas and capital-city regions. Similarly, indicators on other dimensions may be higher or lower due to specific regional structures, with some problems more likely to be present in urban environments (such as noise, crime and air pollution), and others in rural areas (like unemployment, and weaker ICT access). Moreover, the current classification of EU 'regions' based on statistical and administrative units (NUTS – Nomenclature of territorial units for statistics) is not always consistent with functional areas (namely service areas of hospitals and schools, travel-to-work areas and metropolitan areas). The NUTS methodology provides a time series for about three decades and is well established, but other typologies may provide more accurate information on spatial distribution trends. The European Commission proposes using geographic information systems (GIS) in order to identify such functional areas. This additional regional data may improve intraregional comparability and policy relevance.

In applying regional indicators, it is also important to bear in mind the diversity of regional development models and specialisations (for example, being industry or tourism-based). Regions have their various strengths and weaknesses, as well as territorial features (urban–rural balance and a variety of regional economic structures). Thus, the same objectives may not be applicable everywhere and in terms of specific policy strategies indicators must be relevant to the regions. In case of EU policies, a challenge is to agree on a set of indicators (or a specific index) and use it in all EU regions in order to ensure comparability and a move towards common policy objectives.

Examples of regional indicators at EU level

Eurostat – the EU’s statistical office – compiles a variety of data at regional level, including regional economic accounts, demographics, business, health, labour market, crime and poverty, and many others. Data are usually available at the NUTS 2 level and occasionally at NUTS 3 level. The Eurostat Regional Yearbook, published annually, presents a comprehensive overview of up-to-date regional indicators in a variety of dimensions. The European Union labour force survey (EU-LFS) offers some regional data (such as on unemployment) and work on regionalisation of data through EU statistics on income and living conditions (EU-SILC), such as poverty and social exclusion, is currently ongoing. Some regional data are also available as part of the Eurostat ‘Quality of life in Europe’ project, as well as under statistics on cities and rural-urban typologies.

In addition to these individual indicator data sets, the European Commission has recently produced several regional indexes, made up of various dimensions. Some have turned into regular publications; others have been produced only once as an experimental exercise. The examples presented in detail below have been chosen as they include indexes which are either published regularly, are variants of well-established international indicators or are already used in EU policy. Data gathered within these indexes reveal that issue-specific regional performance is not always correlated with GDP. For instance, the patterns of income differences (as measured by GDP per capita) differ
from those based on regional innovation, competitiveness and human development (see Figures 5-8).

The **Regional Competitiveness Index** (see Figures 4 and 6) has been available since 2010. It was modelled on the Global Competitiveness Index developed by the World Economic Forum.

**Figure 5 – GDP per capita in EU regions**


**Figure 6 – Regional Competitiveness Index**


Under the key aspects considered crucial for competitiveness, such as institutional infrastructure and human capital, 73 detailed indicators are gathered. It is published every three years, with the most recent edition available dating from 2013.

The **Regional Innovation Scoreboard** has been published since 2002 (see Figure 7). It focuses on research and innovation indicators, such as share of population with tertiary education, R&D expenditure, patent applications, knowledge-intensive exports and SME innovation. So far, it has had seven editions. In the most recent version, from 2016, the index is composed of 25 detailed indicators. As far as integration in policy-making is concerned, it is linked to the **Innovation Union**, a flagship initiative of the Europe 2020 strategy, helping to monitor innovation performance at the regional level.

The **EU Regional Human Development Index (HDI)** was published in 2014, with results for
Beyond GDP: Global and regional development indicators

2006-2012 (see Figure 8). It follows the three-dimensional United Nations HDI structure (education, health and income) aggregated in one final figure, but has six detailed indicators adjusted to the European context. Disaggregated data sets are also available for each of the three dimensions, allowing for comparison of regional performance on each component.

The Europe 2020 index is based on the Europe 2020 strategy targets in the area of employment, research and innovation, environment, education, poverty and social exclusion (see Figures 3 and 9). A 2014 study commissioned by the Committee of the Regions explored the development of a Regional Progress Indicator based on Europe 2020 targets. The latest regional Europe 2020 data are available in the 2015 Commission report entitled, 'The Europe 2020 Index: The progress of EU Countries, Regions and Cities to the 2020 targets'. Although this index is currently the most integrated and consistently used in EU policy at regional level (namely in the strategic orientation of EU cohesion funding), it is not certain whether it will continue to be used after 2020 in its current form, as the Europe 2020 strategy will be revised.

Several additional experimental regional indexes have been developed by the Commission in recent years. The EU Quality of Government Index (EQI) of 2012 focuses on corruption, the rule of law, government effectiveness, voice and accountability. A 2012 Commission study presents an attempt to measure quality of life at regional level, focusing on indicators related to living standards, health and inequality. The 2013 Regional Entrepreneurship and Development Index (REDI) includes variables related to entrepreneurship, such as on technology, business environment and risk acceptance. The 2014 regional Human Poverty Index (HPI), modelled on the UN’s Multidimensional Poverty Index (MPI), aggregates data on health, knowledge, decent standard of living and social exclusion.

The regional Social Progress Index (see Figure 10) is a collaborative project of the European Commission, the Social Progress Initiative and the Basque Institute of Competitiveness (Orkestra), developed since 2014. A comprehensive index, it complements GDP in a variety of dimensions including basic human needs, well-being...
Beyond GDP: Global and regional development indicators

and opportunity (see Figure 2 for details on the components). It is available at the NUTS 2 level. The draft index was released in February 2016, and is scheduled to be updated in mid-October 2016. At the same time, a pilot project will be launched in several European regions to see how authorities involved in implementing EU cohesion policy can use the index as a tool for improving project management and ensuring effective policy-making.

Examples of indicators at regional level in EU Member States

In 2010 the Committee of the Regions conducted a survey among local and regional authorities to learn about their views and experiences with 'Beyond GDP' indicators. The majority of contributors considered GDP insufficient to capture broader social and economic aspects of regional development. They also supported the development of additional comparable indicators, taking better account of regional characteristics. However, views differed on whether new indicators should guide all or only some aspects of EU policy, and whether they should be used both for policy design and evaluation or only one of these stages. Examples of indicators already in use included the '21 indicators' pilot project of the French Nord-Pas de Calais region, launched in 2003 by the regional authorities. It is used to support the implementation of the Regional Sustainable Development Strategy, Regional Spatial Planning and Development Scheme and the regional Agenda 21. The selected indicators include the Ecological Footprint, Human Development Index, an indicator of female participation in political and economic life, a barometer of inequalities and poverty, and a social health indicator. The '21 indicators' project aims to provide a comprehensive overview of sustainable territorial development, support the monitoring of progress towards the objectives, map the territorial impact of political choices, raise awareness and stimulate public debate.

The Regional Index of Sustainable Economic Well-being (R-ISEW), produced by the New Economics Foundation (NEF) and funded by a consortium of regional development agencies, attempts to capture regional economic activity's contribution to well-being in nine regions in the United Kingdom. Methodologically, it is based on consumer expenditure as a measure of economic performance, and makes positive adjustments (for instance, it adds household labour, volunteering and public expenditure on health and education), while subtracting negative externalities (such as environmental and social costs – including pollution, crime and accidents). Its proposed use in policy-making is to demonstrate the trade-offs between political choices, and to assess overall progress towards sustainable economic well-being in a given region.

The Regional Welfare Index (Regionale Wohlfahrtsindex – RWI) is used in several German Länder (including Bavaria, Saxony, Schleswig-Holstein, Rheinland-Pfalz, Thuringia and Hamburg). It has a similar methodology to the R-ISEW in that it takes private household

Figure 10 – EU Regional Social Progress Index

consumption as a starting point, adding and subtracting social and environmental factors expressed in monetised values. The index is aimed at guiding economic policy oriented towards well-being, such as through investments, and is supported by the regional ministries.

The Regional Index on Alternative Quality of Life Indicators (QUARS), launched in 2003 by the Sbilanciamoci! initiative comprising 45 associations, NGOs and networks, aims to comprehensively assess the quality of development in 20 Italian regions. Quality of development and the corresponding indicators are defined in terms of environment, economy and labour, rights and citizenship, equal opportunities, education and culture, health, and political and social participation. These seven dimensions with detailed sub-indicators are aggregated in a single value. The initiative is meant to promote an alternative approach to economic development, stimulate debate on the choice of components and advance work on their measurement. In 2012, the QUARS index was recognised by the National Economic and Labour Council (CNEL) report in preparation for its project on measuring equitable and sustainable well-being (BES – Benessere Equo e Sostenibile), carried out in collaboration with the Italian National Institute of Statistics (Istat).

Other examples at regional level include the Sustainability Profile developed by the city of Rotterdam, described as part of the Brainpool project case studies. A study conducted by the Institute for Sustainable Development and International Relations, in collaboration with Sciences Po, entitled 'Beyond-GDP indicators: to what end?' explored six national initiatives, including regional indexes used in Wales, UK ('One Wales, One Planet'), and Wallonia, Belgium (a system of five key indicators). The authors of the initiatives explored frequently emphasised the need for increased cooperation with the national level authorities. Other regional initiatives can be found in the Wikiprogress database, a collaborative knowledge-sharing portal supported by the OECD, and the Spiral database ('Societal Progress Indicators for the Responsibility of All') hosted by the Council of Europe.

**EU institutions**

**European Commission**

As the follow-up to the 2007 'Beyond GDP' conference, the European Commission published a communication, 'GDP and beyond: measuring progress in a changing world', in 2009. This contained a 'roadmap' with several actions at EU level, including the development of a framework of environmental and social indicators complementing GDP, as well as improving the availability and accuracy of data. In 2013 the Commission published a working document evaluating progress on these actions. In addition, the Commission hosts a website dedicated to the 'Beyond GDP' initiative and publishes newsletters on the latest developments.

**European Parliament**

In its resolution of 2011 on 'GDP and beyond – Measuring progress in a changing world' the EP supported the development of clear and methodologically consistent indicators reflecting various aspects of socio-economic progress. In the same year, together with the Council, it adopted a Regulation on environmental economic accounts, which established a framework for collecting and compiling environmental data. In 2013, it adopted, with the Council, a Regulation on the European system of national and regional accounts, calling in its position for a more comprehensive measurement approach for well-being and progress.
European Economic and Social Committee

In its 2009 opinion on ‘Beyond GDP – measurements for sustainable development’, the Committee presented its views on existing indicators and stressed the need to focus on sustainability and welfare. Its 2010 opinion on the 'Beyond GDP' communication welcomed the ongoing efforts to bring more comprehensive indicators into policy-making, and advocated careful analytical preparation and consultation with interested parties. In 2014 the Committee held a conference, 'Let’s talk happiness – beyond GDP', which focused on debating indicators for measuring well-being and social progress.

European Committee of the Regions

In its 2011 opinion on 'Measuring progress – GDP and beyond', the Committee pointed out the need to complement GDP with other indicators, and proposed the establishment of a comprehensive environmental index and a harmonised social survey at EU, national and regional level. In 2015 the CoR hosted a seminar on 'Monitoring polycentric territorial development in Europe with novel indicators: beyond GDP and NUTS 2'. Workshops on 'Beyond GDP' indicators were also held during successive editions of Open Days – the European Week of Regions and Cities. This year's edition, in October 2016, will host the launch of the updated regional Social Progress Index. The opinion on 'Indicators for territorial development – GDP and beyond' of February 2016 supports a multi-dimensional approach, complementing GDP with other social and environmental indicators. It calls for a regionalisation of Europe 2020 targets and investigating the possibility of using 'functional regions' going beyond the NUTS classification in the post-2020 framework. It also stresses the need for more timely availability of regional data and enhancing administrative capacities in this area. In the 2016 draft opinion on 'The future of cohesion policy beyond 2020' the CoR supports retaining GDP as the main indicator for classifying regions, however, it suggests including additional criteria when distributing funds (e.g. related to the labour market and other territorial challenges).

Main references


What next for EU Cohesion Policy? Going 'beyond GDP' to deliver greater well-being, C. Dhéret, European Policy Centre policy brief, 2011.


Endnotes

1 Monthly calculations are also available. For more definitions of GDP and its calculation methods, see Eurostat and OECD.

2 The creation of GDP is attributed to Simon Kuznets, an economist at the National Bureau of Economic Research, who in the 1930s provided the first calculation of national accounts in the US. After the Bretton Woods conference of 1944, which established the international financial institutions such as the World Bank and the International Monetary Fund, GDP became a standard tool measuring the economic performance of countries across the world.

3 European Structural and Investment Funds (ESI Funds) include five funds, of which three form part of EU cohesion policy: the European Regional Development Fund (ERDF), the European Social Fund (ESF) and the Cohesion Fund (CF). The remaining two ESI Funds support the agricultural and fisheries policies: the European Agricultural Fund for Rural Development (EAFRD) and the European Maritime and Fisheries Fund (EMFF).

4 National Reform Programmes, Partnership Agreements, Operational Programmes as well as evaluation documents.

5 Regions eligible for ERDF and ESF funding are classified in three categories: less developed regions (GDP per capita of less than 75% of the EU average), transition regions (between 75% and 90%) and more developed regions (above 90%). About two thirds of the funding is directed to the less developed regions. The third cohesion policy fund – the Cohesion Fund – is available only for countries that have less than 90% of average EU gross national income (GNI) per capita.

Disclaimer and Copyright

The content of this document is the sole responsibility of the author and any opinions expressed therein do not necessarily represent the official position of the European Parliament. It is addressed to the Members and staff of the EP for their parliamentary work. Reproduction and translation for non-commercial purposes are authorised, provided the source is acknowledged and the European Parliament is given prior notice and sent a copy.


Photo credits: © diego1012 / Fotolia.