

ABSTRACT

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GDP and beyond: alternative indicators to measure social progress

The statistical indicators are a key element for the promotion of human well being: they help to evaluate policies, to point out undesired effects and to promote social consensus towards political decisions. The drawbacks of GDP as measure of economic welfare and social progress are well known since the indicator has been created but only recently many studies focused on these issues: among these the *Report by the Commission on the measurement of economic performance and social progress*, chaired by the prize Nobel winners Joseph Stiglitz and Amartya Sen and by Jean-Paul Fitoussi, on request of former French President of the Republic Nicolas Sarkozy.

1) Historical framework: the debate on GDP

After Second World War politicians and economists started considering economic welfare as a synonymous of general well being and GDP became the most relevant statistical indicator to measure social progress even if his creator, Simon Kuznets, cautioned to not confuse this indicator with a measure of general well being. However GDP became the principal indicator to evaluate the level of development of different countries and only few politicians (for example Robert Kennedy) and economists (see the well known article written by Nordhaus and Tobin "*Is growth obsolete?*") showed awareness about the drawbacks of the indicator and about the necessity to find additional measures. Recently some international organizations and some governments have started working in this direction: from the beginning of the 90s the United Nations Development Program (UNDP) started to work on indicators capable to evaluate the multidimensionality of well being, launching on 1990 the first version of HDI and on 2000 the Millennium Development Goals accompanied by many indicators. From 2000s OECD began to be interested in these matters too, organising three world Forum called "*Statistics, knowledge and policy*", launching the *Global Project on measuring*

the progress of societies and the global network WikiProgress, and presenting on April 2011 the Better Life Index, a new interactive index. At the same time EU launched the “*Beyond GDP*” project. In a communication provided in 2009 by the European Commission to the Parliament and the Council called “*GDP and beyond. Measuring progress in a changing world*” GDP is described as a powerful indicator, nevertheless not able to analyse all the issues discussed by public opinion. Gradually many governments are becoming interested in the reform of the statistical systems: each country is pursuing a different way. While Bhutan has worked since 70s in the development of his national index, Gnh (gross national happiness), in Canada a private university developed a synthetic indicator called Canadian index of well being and the Australian bureau of statistics measures the level of development of the country with the Measures of Australia’s progress. In Italy Cnel and Istat are engaged in the creation of a new set of indicators called Bes (equitable and sustainable well being) which should be ready soon. Today we observe a growing attention on this issue not only by politicians and economists but also by society and media. In this debate we find the work of the *Commission on the measurement of economic performance and social progress* with the final Report presented on September 2009 in Paris. The Report is based on the idea that “*what we measure affects what we do*”, therefore misleading and insufficient measures can cause as much distorted decisions. Frequently political choices are made on the base of expected effects on economic growth but if the index were distorted, also the decisions could be wrong. Furthermore many people have lost trust in statistical data because of the discrepancy between them and what they perceive in their life: this gap cannot be completely explained by the monetary illusion phenomenon but it is necessary to consider changes in term of inequality. For the Commission GDP is not wrong in itself but it is wrong used: consequently it is important to ameliorate the existing measures of economic performance, to shift the emphasis from the economic production to the measure of people well being end to analyse if the development we are pursuing is sustainable or if it cannot be kept by future generations.

2) Classical question related to GDP

GDP can be defined as the value of goods and services produced in an economy in a time, as the sum of added value produced in that economy or as sum of incomes of the economy in a time. GDP measure essentially the economic production and it is not an index of general economic welfare. There are, in fact, many problems related to the construction of GDP: it is obtained using market prices of goods and services but ratio between prices of different goods is representative of the buyer preferences only if market and price system are working well; allocations are used to consider products which do not have a market price, making GDP less comprehensible and reliable; concepts of price and quantity often do not consider properly qualitative improvements (the problem is even more evident and considerable for services' improvements); GDP estimates as positive some expenses which do not contribute directly to the society well being: Nordhaus and Tobin defined as "*defensive expenses*" those which are not immediate sources of utility but are necessary for activities which generate utility; GDP completely ignores two elements which have a positive impact on well being, housework and leisure: it would be important to have data to consider these two components because the shift of a service from family circle to market should not influence aggregate production since it does not provoke an improvement of social well being. Seeing that all the suggested approaches and the available data are inadequate, the Commission encourages a process of data gathering and urge the formulation of new indicators less fallacious that make possible a comparison between countries and historical period, which is the main GDP strength.

All aggregate indicators of national accountancy are calculate per capita, so they do not give information about the resource distribution in society and about the level of inequality: they offer data on population as a whole and do not permit to study specific categories of families. In this way it is possible to explain why some people do not see effects in their life subsequent to an official GDP growth: sometimes only some categories profit from the GDP increase. Consequently it is fundamental to know the level on inequality of a country to evaluate the well being. Since neither average income nor average consumption give information on segment of the population, it is

useful to consider median income, consumption and wealth. Median data, half of the population is above and half of it is below, give the representation of the “typical” individual: the level of inequality is high if the distance between them and average data is ample. It is necessary to have microeconomic data to observe distributive aspects: since the definition of some concepts is not universally shared, there is not complete harmonization of this data and international comparability is not perfect. The Commission encourages to calculate income not per capita but per consumption units (families) and to consider real income and not nominal income to evaluate standard of living. In the actual systems of national accountancy the analysis of existing indicators alternative to GDP could be a first step towards a better measurement of welfare. They highlight phenomenon and trends that would not be clear observing only GDP. Net index would always be preferable than gross measures since the output set aside as depreciation does not have positive effects on well being. However GDP is preferred to Net Domestic Product because is easier to calculate and generally the ratio between them remains unchanged. Nevertheless recently, with the development of IT (information technology), depreciation time changed and it would be useful to analyse separately GDP and NDP. NDP considers only depreciation of fixed capital: to be a more reliable index it should include depreciation of every capital. To evaluate well being it is more suitable to examine income (demand) than production (supply): National Net Disposable Income considers flows of incomes between countries, including transfers that benefit residents of different areas as to country considered. This index can be quite different from GDP because part of incomes produced by residents is sent abroad while residents can receive income from foreign countries. Adjusted Disposable Income is the best index to evaluate the individual standard of living et to make comparisons between countries since it considers not only monetary but also in kind social transfers from the state to the families: for this reason this measure help to apply the invariance principle because it permit to compare countries with completely different institutional set-ups.

3) Quality of life

Progress of a society and well being of his inhabitants depend on multiple factors, not necessarily connected with economic production and material standard of living. In philosophy the meaning of concepts such as progress and well being has always been debated. In 1974 Easterlin claimed that economic growth does not cause the same increase of well being and level of individual happiness is similar in poor and rich countries. These studies and those following that criticized some Easterlin's conclusions were based only on subjective well being, the perception that people have about the quality of their life. Some analysts believe that there is also an objective dimension of well being, which examine people concrete living conditions: to elaborate indicators of social welfare and well being it is necessary, first of all, to understand what to include in the "social well being", since every indicator implies understood value judgement. Utilitarianism, in his basic version, completely ignores distributive problems; welfare economics is based on a function of utility too but it can avoid the same gap (see function of utility proposed by Rawls). Amartya Sen (as John Rawls) thinks that well being does not depends only on economic resources available: to explain the contribution of goods to individual's well being he introduces the concepts of functionings (way to use and social practices that give utility to goods) and capabilities (real and effective potentialities and possibilities, which people have to pursue their goals). The considerations of the Commission are based upon three approaches: subjective well being, which can be measured with the Cantril scale or with U-index, which combines objective and subjective data; the approach of functionings (combinations of beings and doings) and capabilities developed by Sen; the fair allocations approach, based on the respect of the people's preferences to weight non-monetary dimensions of quality of life. The Commission choose eight dimensions to consider evaluating standard of living, upon which there is agreement between the majority of the researchers: health, which influences both length and quality of life; education, which has multiple beneficial effects on people's life; personal activities; political voice and governance, necessary to assess the good functioning of a democratic system; social connections, defined by Robert Putnam

“social capital” considering how beneficial they are; environmental conditions, which influence the sustainability of the development but have also direct and indirect effects on person’s life; personal insecurity, which includes external factors that endanger individuals’ physical integrity; economic insecurity, connected with the existence of future risks such as unemployment, disease and old age. Difficulties connected to the aggregation of objective and subjective measures and the lack of consideration for the social dimensions of well being in the aggregates of national accountancy can explain the interest provoked by the proposal of Human Development Index (HDI). This indicator elaborated by Mahbub ul Haq was presented for the first time in the 1990 Human Development Report realized by UNDP with the aim to create an index that take into consideration progresses in some basic capacities: health and longevity, access to education, decent standard of living. The indicator represents the geometric mean of those used to measure the three dimensions. The results of HDI, published every year by the UNDP, have a strong impact on public opinion, as his creator ul Huq hoped. He decided in fact to elaborate a synthetic indicator of a unique figure as GDP precisely to attract general interest. It is evident that this indicator do not include all the well being’s dimensions, first of all sustainability. It does not consider inequalities too, as every index built from average data: for this reason from 2010 UNDP provides also data for Inequality-adjusted HDI; the difference between this index and HDI represents the loss of well being caused by inequalities.

In 2011 OECD, since many years engaged in the research of more complete and powerful measures of well being, launched his new indicator: the Your Better Life Index. This is an interactive tool in which it is possible to find data about all the OECD countries related to the 11 dimensions chosen as fundamental components of human well being: health status, work and life balance, education and skills, social connections, civic engagement and governance, environmental quality, personal security, subjective well being, income and wealth, jobs and earnings, housing. The strength of the index is his interactivity, the possibility for everyone to give more or less importance to every dimension; at the same time the choice to not create a definitive ranking makes this indicator necessarily approximate.

4) Sustainable development and environment

Measure of actual well being must be distinct from measure of the sustainability of our development; the effort to unify the two aspects in a unique index could only generate confusion. From the publication of Brundtland Report in 1987 the expression “*sustainable development*” means the development that allows satisfying the needs of present generations without altering or compromising the capacities of future generations to satisfy their necessities. Stock based measures are the most adequate to evaluate the sustainability of our path: they consider well being of future generations dependent from the resources’ stock we’ll leave them. The aggregation of all the stocks in a unique measure is particularly difficult; since future is uncertain and it is not possible to forecast the interactions between environment and economy the Commission choses a pragmatic approach: they propose to divide measurement of economic sustainability and environmental sustainability. In economic field factors of production have a market price and the replaceability between them could be acceptable; moreover sustainability is connected essentially to the national political choices. The Commission proposes to use a unique index, such as the Adjusted Net Savings elaborated by the World Bank. Since actual tools do not permit to include in this index value of all environmental goods, it should be combined with a set of well-chosen physical indicators, which would focus on environmental sustainability. ANS is an indicator developed by 90s from the World Bank, based on the concept of extended wealth. Stock of capital included in the calculation (productive, human and some natural resources) should be constant or growing in a year to define as sustainable the development path of the country. The results depend greatly from what it is included in the extended wealth; however the indicator is based on a clear theoretical framework and gives much information to policy makers. Ecological footprint is based on the approach stock based too; in this case however only natural capital is taken into consideration and prices market are not used. Calculus of ecological footprint is based on the comparison between the ecological demand by humanity with the supply of the nature, the biocapacity: both measures are expressed in term of global hectare, the hectare that represents the average global bioproductivity. If

the human demand exceeds the biocapacity we are in overshoot, an unsustainable situation. Nowadays this index is calculated for different areas, sometimes really small, but the only useful calculation is on global basis since local deficit can be filled with surplus of other areas without compromising global sustainability.

Conclusions

Nearly three years after the presentation of the Report, the issues upon which it is based are frequently debated in the media by politicians, economists and journalists. The Report does not supply definitive answers, it still places itself as a new starting point for a difficult route, summarising and critically analysing progresses achieved until now. The path will probably still be long because indicators elaborated until now give too different signals to consider them reliable. Furthermore it is necessary the social agreement upon the definition of progress to elaborate a shared indicator: the only way to obtain it is to involve in this process as many institutions and as many people it is possible.