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Sustainability and growth – towards the description of an area of conflict on the basis of national indicators

Sustainable development strategies like those put in place by most OECD countries need an adequate kind of reporting system regarding obstacles and objectives, both as a basis for the political decision making process and for an assessment of the consequences of political measures. In this respect indicator systems for a quantitative description of trends are particularly interesting. Economic parameters like gross domestic product (GDP) are often used, although in the last few years in European statistics the GDP has been replaced by the only slightly different concept of gross domestic income (GDI).[1]

Meanwhile there is a long lasting discussion about the adequacy of the GDP as a parameter of social welfare. This discussion is now being rekindled against the background of the values and paradigms of the concept of sustainability: particularly the cost of environmental changes and the deriving social costs of certain activities are not sufficiently visible in GDP. Some items included in the national accounts are even in contradiction with the goals of sustainability, e.g. the growing consumption of fossil energy, the costs caused by environmental disasters or by alcohol abuse. Economic growth as such cannot be automatically associated with a real improvement of present-day and future living conditions, which require other indicators or indices, instead.

Related to a research project by FEST and FFU (Research Centre for Environmental Policy), financed with the support of the German Federal Environmental Agency, a new complementary indicator was conceived in its main features:[2] a first version of a "national welfare index" (NWI), intended to be a *complementary source of information* aiming at enriching the social discourse about "sustainable growth".

The NWI is composed of 21 partial variables taking account of welfare services neglected up to date, such as voluntary work and domestic work on the one hand, as well as of environmental damage and the costs of compensation for environmental damages on the other hand. These partial variables stemming from the assessment of empirical approaches in different countries are conceptually based on the "Index for Sustainable Economic Welfare" (ISEW) and on the approach of the „Genuine Progress Indicator" (GPI). The following graph will provide information on the present day status of the selected partial variables:

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[1] GDI is equal to GDP minus the balance of primary incomes with the rest of the world. In most cases, in Germany the difference between GDP and GDI in the last few years amounted to less than one per cent.

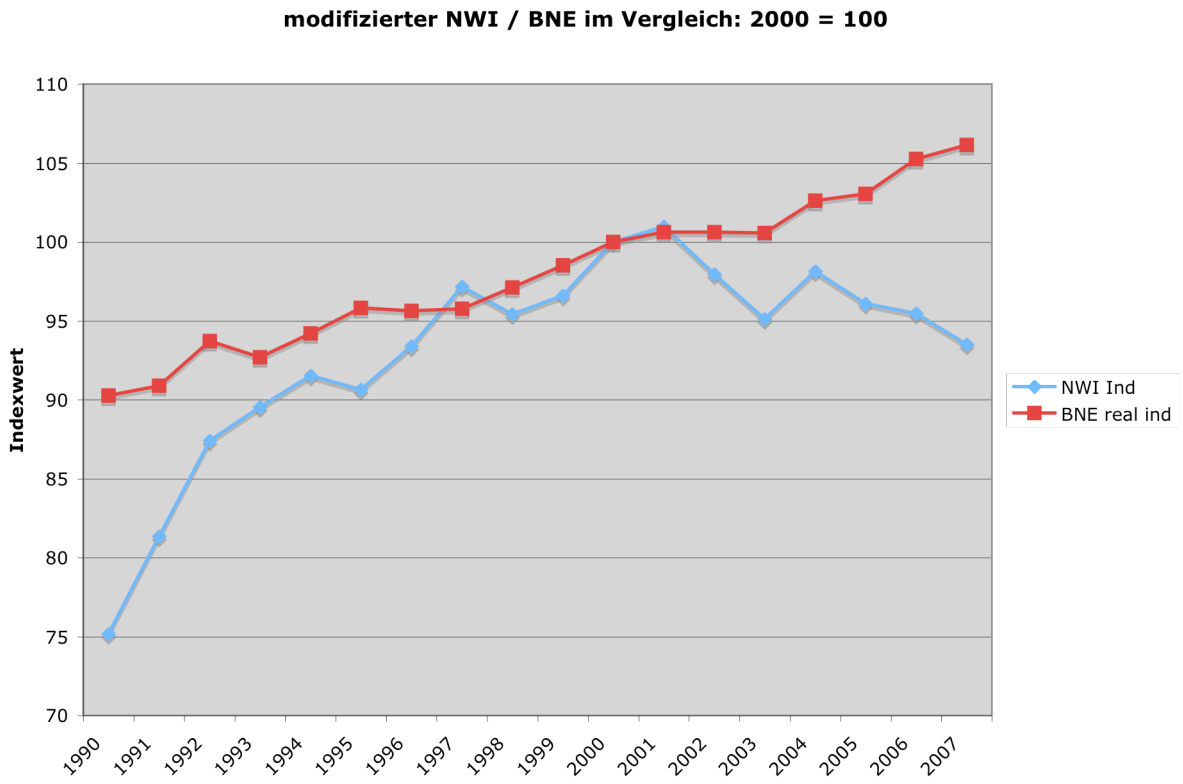
[2] Diefenbacher, Hans /Zieschank, Roland (2008): Wohlfahrtsmessung in Deutschland - Ein Vorschlag für einen neuen Wohlfahrtsindex (Welfare measurement in Germany – A suggestion for a new welfare index), R&D review – research index FKZ 3707 11 101/01.

Suggested variables for the National Welfare Index

	Variables	Impact on the index	ISEW	GPI
1	Index of income distribution		X	X
2	Weighted consumer spending	+	X	X
3	Value of domestic work	+	X	X
4	Value of voluntary work	+		
5	Public spending on Health and Education	+	X	X
6	Consumer durables – cost / benefit	+ / --	X	X
7	Commuting between home and work	--	X	X
8	Cost of traffic accidents	--	X	X
9	Cost of crime	--		
10	Cost of alcohol-related diseases	--		
11	Social cost of compensation for environmental damages	--		X
12	Damages due to water pollution	--	X	X
13	Damages due to impacts on the soil	--		
14	Damages due to air pollution	--	X	X
15	Damages due to noise	--	X	X
16	Loss of wetland	--	X	X
17	Damages due to the loss of usable agricultural area	--	X	X
18	Substitution costs generated by the exploitation of non renewable resources	--	X	X
19	Damages due to CO_2 emissions	--		X
20	Net change in the value of invested capital (excluding buildings)	+ / --	X	X
21	Changes in the capital account	+ / --	X	X

Source: Diefenbacher / Zieschank 2008

The following graph will show a variant of NWI, containing ecological and social variables, in comparison with GDI. Both time series were normalized to the year 2000 = 100 in order to make up for level differences in both curves. If you compare the curve shapes for GDI and NWI in the graph you will notice some very clear differences: a constant growth in gross domestic income is being opposed to a completely different development of the new welfare index which, as a recent trend went down considerably, again.



Source: Diefenbacher/Zieschank 2008

The calculations made until now have confirmed the theoretical reflections of ecological economics, according to which not all results stemming from activities associated with an economic creation of value contribute to an improvement of social welfare. The divergence is due to a structural difference in the construction of GDI and NWI, since the respective calculations have been made on the basis of different basic assumptions. Firstly, the starting parameter of the NWI is private consumption weighted with an index of income distribution. Secondly, the NWI considers that goods and services preserving the economy and society are produced by, but do not contribute primarily to the welfare of the people. Thirdly, the subtractions due to negative external effects are so significant that they clearly overcome all positive effects added to the index, for instance in the field of voluntary work.[3]

The NWI for Germany is now being further developed against the background of an intense international discussion about the contents dimensions of a sustainable social development. As a consequence the question of adequate balancing instruments arose.

A propulsive risk factor looming on the horizon, now, as opposed to the time of the first controversy on GDP about 20 years ago, is climate change with its predicted costs for society, assessed by several studies as becoming higher and higher as long as measures contrasting it are postponed. As an implicit consequence thereof, the discussion about the real benefit of the achieved enhancement of the living standard is crossing the boundaries of scientific circles and reaching large sectors of society.

[3] This is still true although, for example, the costs due to air polluters have diminished and although different valuation criteria are used to assess substitution costs generated by the exploitation of non renewable resources

Starting from the second world forum about „Measuring and Fostering the Progress of Society“, the OECD has assumed a leading role in reflections on how to understand social progress in terms of contents and methods. The promotion of social welfare can be seen as the unifying goal of these efforts. A partial rejection of the GDP-orientation was evidently intended, as the following quote from the ‘Istanbul Declaration’ of 2007 shows:

> „We are encouraged that initiatives to measure societal progress through statistical indicators have been launched in several countries and on all continents. Although these initiatives are based on different methodologies, cultural and intellectual paradigms, and degrees of involvement of key stakeholders, they reveal an emerging consensus on the need to undertake the measurement of societal progress in every country, going beyond conventional economic measures such as GDP per capita.”

In the same year the EU launched a political debate on appropriate criteria and approaches beyond the GDP-orientation. A conference titled “Beyond GDP“ was held in autumn 2007 at the European Parliament in Brussels supported by prominent representatives of important international institutions and organisations, amongst others the EU Commission, the European Parliament, the Club of Rome, the WWF, the World Bank, the OECD, the United Nations and also (with active contributions) some important international and national statistics agencies like EUROSTAT, moreover the European Environmental Agency EEA.

In the talks delivered at this meeting a more well-defined scepticism towards the conventional parameters of welfare was expressed and the claim for complementary reporting systems was formulated more drastically than it had been previously the case in Germany. Climate disaster, the ongoing loss of biodiversity, and the fact that meanwhile two thousand million people had fallen below the poverty line was seen as a failure of market in spite of an overall growth in global economic output. As a matter of fact, the constant orientation to a “turnover-oriented approach” causes an acceleration, since growth routines are promoted which do not help, but worsen the overall crisis situation: for example, according to data provided by the World Bank, 6 per cent of China’s yearly GDP is lost because of social and ecological deterioration; since 2005 the Chinese Academy of Science has esteemed losses caused by environmental damage to be even higher than the economic profit produced by the yearly growth in China’s GDP, so that China is actually faced with “idle growth”.

At the Brussels conference the WWF, too, expected a “market transformation” with the need for deep changes in the stocks and flows of money, energy and materials, connected with a change in the field of political governance and administration. France’s representatives saw a surplus in the flows of money and goods which is no longer in accordance with the existing human and natural capital. The addresses of the President of the EU Commission, Barroso, and of the President of the European Parliament, Pöttering, alluded to political actors having concentrated themselves on economic growth for too long; Europe’s future can not be shaped with instruments of the past and the way in which politics have been trying to understand economic-ecological processes until now should rather change. In his final summary of the meeting results, EU Environment Commissioner Dimas stated that the conference would lead to a desirable turning point in the assessment of measurement and evaluation of the economy based on the GDP, towards an innovative breakthrough in monitoring social developments: “Perhaps the main achievement of this conference

has been to clearly demonstrate the political consensus on the need to go beyond GDP".

In some Asian countries, starting from Bhutan, a different trend has emerged: it was suggested to replace the concept of GDP through the development of a so called "Gross National Happiness Product" (GNH), aiming at measuring social progress. In November 2007 already the 3rd international conference about the GNH was held in Bangkok. The idea of a not only material, but at the same time immaterial – if not straightforwardly spiritual – well-being has got important implications for the definition of a measurement of welfare. The loss of religious reference systems is seen as being linked with a secularized orientation which, finally, no longer knows any higher goal than economic growth (alone).

In comparison with research concerning happiness, the new welfare index (NWI) presented in this paper remains much more strongly connected with the traditional reference frame of economics. However, it can be stated that thanks to the important role it ascribes to the indicators of the pursuit of national sustainability strategies, its new impulse could lead not only to a better measurement of social progress but also to a stronger emphasis on its qualitative aspects.