Since the mid-1980s at the latest, there has been a discussion in Germany among economists who do not belong to the neoclassical mainstream on the question of the extent to which the primary objective of economics, namely to achieve unlimited growth in principle, should be relativised. Initially, I had participated in this discussion from a theoretical-historical perspective that resulted in a special issue of a journal that examined the relationship between economics and ecology in several different approaches. An important reason for this appeared to us that the system of national accounts with GNP as the central unit could provide a completely wrong benchmark. That is why I found it highly interesting when John B. Cobb, Jr., visited me in Heidelberg on the occasion of a trip to Germany and introduced me to his work *For the Common Good*, which he had just published together with Herman Daly, especially to its appendix on the newly developed Index for Sustainable Economic Welfare (ISEW). Shortly after this visit, the idea of transferring the statistical concept of the ISEW to Germany with a calculation of a time series since the beginning of the Federal Republic of Germany came up, which I realized in the following years – however, with a considerable limitation, because a back-calculation for the whole of Germany failed: Despite great efforts, I did not succeed in determining a reliable time series for several components of the ISEW for the territory of the former German Democratic Republic. The result of these first efforts of a transmission have been published in German and in English.

At the time, the publication was well received by the scientific community, the media, and politicians. The reactions from science ranged from cautious praise and approval of the fact that, with the present calculation, the possibility of an alternative welfare calculation had been proven to be feasible in principle, to sharp criticism: with an appropriate and not at all unrealistic monetarization of the negative external effects in the ecology sector, the overall result in the ISEW could well have turned negative – and even the pure possibility of negative welfare appeared to the critics to be completely absurd.

Politically, however, this work supported the position of the Green Party, which had already demanded a rapid replacement of the conventional calculation of GDP by an “eco-social product” a few years earlier. Their initiative resulted in political pressure, which in 1990 led to the establishment of the Scientific Advisory Council on Environmental-Economic Accounting at the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU), which provided very good theoretical and conceptual support for the development of environmental-economic accounting at the Federal Statistical Office, for example through its clear systematisation of environmental costs; however, in its fourth and final statement in 2002, the Council argued definitively that there should not be an official eco-social product in the future.

The intention of the Federal Government in office in 1990, headed by Minister for the Environment Klaus Töpfer, to modify the traditional national accounts in such a way that the burdens on the environment resulting from economic activities would be adequately taken into account, as well as corresponding measures for the protection of the environment, was described as “potentially extremely impressive,” “but not as easy to put into practice as the originators of the ideas had obviously imagined.”

But the consensus of this negative attitude did not last very long, even though it has become the cantus firmus of the Federal Statistical Office since

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6 A cross-section of the media response to the NWI in general can be found at https://www.fest-heidelberg.de/fne-themenfeld-wohlfahrtsindizes/, accessed May 24, 2022.


this publication. As early as November 2007, the European Union, together with
the European Parliament and with the cooperation of the Club of Rome, the
OECD, and the WWF, organized an international conference under the heading
“Beyond GDP” with the aim of sifting through the existing and working out
new suitable indicators for measuring prosperity. In Germany, slightly earlier
that and in the same year, 2007, the Federal Environment Agency funded a pro-
ject entitled “Expert Dialogues on the Further Development of the National Sus-
tainability Strategy.” In the framework of this project two such dialogues on the
topic of growth and welfare measurement took place. These expert dialogues led
to a workshop at the Federal Ministry for the Environment in 2009 on the topic of
the National Welfare Index, which discussed a first set of components for such
an index developed by Roland Zieschank of the Environmental Policy Research
Centre at the Free University of Berlin (FU) and by the author of the present
paper. These activities were certainly strengthened by the fact that the French
President Nicholas Sarkozy set up a “Commission sur la mesure des performances économiques et du progrès social” under the leadership of Joseph Stiglitz, Amartya Sen, and Jean Paul Fitoussi, which on the one hand was to work out im-
provements in measuring the performance of the economy and on the other
hand was to discuss the definition and measurement of social progress in gen-
eral; the final report was published in 2009 and contained a catalogue of topics
for further work, which intersected to a large degree with the first set of com-
ponents for the National Welfare Index (NWI). Thus, the discussion on the NWI
had proven to be connectable to the international discussion; dissatisfaction
with the existing system seemed to produce similar solutions across borders.
However, a German-French attempt to create an indicator-based synthesis in
2010 had again “only” produced a system of indicators without any fundamental
criticism of the use of GDP; among other things, improvements were proposed in

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9 What has remained is at least a website that continuously documents current publications
and has been updated at least until May 2022, accessed May 25, 2022, https://ec.europa.eu/en-
vironment/beyond_gdp/index_en.html.
10 Hans Diefenbacher and Roland Zieschank, Wohlfahrtsmessung in Deutschland: Ein Vorschlag für
einen nationalen Wohlfahrtsindex (Dessau: Umweltbundesamt, 2019). Accessed May 24, 2022,
11 Commission sur la mesure des performances économiques et du progrès social, “Rapport”
also Joseph Stiglitz and Amartya Sen, “Note Problematique de Depart des Travaux de la Commis-
socioeco.org/docs/com_stiglitz_300291317_1_.pdf.
the consideration of services within the framework of a satellite system for household production.¹²

The first set of components of the NWI was still based on the elements of the Index for Sustainable Welfare (ISEW) and its further development into the Genuine Progress Indicator (GPI), whereby components that were not included in the ISEW/GPI were initially examined and calculated: net new debt and public spending on ecological transformation. In the end, both were not included in the basic variant of the NWI for conceptual reasons. Two other components were shortlisted, but then dropped, mainly due to a lack of data availability at that time: the costs of anthropogenic natural disasters and the costs of the loss of species. On the other hand, two core variables of the ISEW were taken out in a first revision of the NWI, as they brought the NWI too much into the field of short-term highly volatile and purely economically caused changes: the net changes in the value of fixed assets and the changes in the capital account. Methodologically, the index differed above all in that it did not contain any cumulative components and thus only showed flows for a specific year.

The authors have always understood the NWI as an open system that has to be receptive to good further suggestions regarding new components or procedural changes.¹³ Such suggestions have been made in particular at the level of the federal states for some of which we have calculated the Regional Welfare Index (RWI) in recent years. Among other things, a change in the calculation method of the component “income distribution” from the Gini index to the Atkinson index and the inclusion of a new component, “costs of involuntary unemployment,” was examined.¹⁴ Both proposals were ultimately not realized. In the larger method revision from the NWI 1.0 to the NWI 2.0, on the other hand, the costs of the use of nuclear energy were newly included in the components of the NWI, since their problems were completely disregarded in the traditional national accounting systems.¹⁵ The use of nuclear power differs significantly from the use of other

¹³ Dipl. Verw. Wiss. Roland Zieschank (FU), Prof. Dr. Hans Diefenbacher (FEST/University of Heidelberg), Dorothee Rodenhäuser, M.A. (FEST), Dr. Benjamin Held (FEST).
¹⁵ Hans Diefenbacher et al., Aktualisierung und methodische Überarbeitung des Nationalen Wohlfahrtsindex 2.0 für Deutschland 1991 bis 2012 (Dessau: Umweltbundesamt, 2016), accessed
energy sources due to some special features, e.g., the generation of radioactive waste and the danger of a nuclear accident, as seen in Fukushima and Chernobyl. The costs to be taken into account in the NWI therefore include the costs of the search for a final storage site, the disposal of radioactive waste, the dismantling and decommissioning of nuclear power plants, as well as costs that would be incurred by liability insurance against the “greatest accident to be assumed” (GAU). The next version – NWI 3.0 – was published just at the beginning of this year. It contains new components and comprehensive improvements of the methodology of the calculation of different old components that cannot be described here due to the lack of space.¹⁶

Over the years, attention for the NWI and its federal state variants – the regional welfare index (RWI) – initially increased significantly and then remained at a fairly good level, but did not increase any further. At the national level, the authors have managed to publish the NWI every year, in recent years with the help of the Hans Böckler Foundation, which is close to the trade unions, and in cooperation with the Institute for Macroeconomics and Business Cycle Research (IMK) in Düsseldorf.¹⁷ It is likely that the NWI currently is the only alternative to GDP in Europe that is presented annually. For a while, it seemed as if it might be possible to place the NWI at least in an official annual indicator report – the “Environmental Data” of Germany’s Federal Environment Agency (UBA). In the 2017 edition, the NWI appears as the final chart of a more comprehensive collection of data, as a kind of summary of developments in Germany.¹⁸ From 2019 onwards, however, the presentation of the “Environmental Data” was changed and the NWI disappeared from this official data collection.¹⁹ In other official documents, for example most recently in the dialogue version of the German

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Federal Government’s National Sustainability Strategy 2020/2021, reference is made to the existence of the NWI, but it is not explicitly used.²⁰

It has been possible in several cases to calculate the RWI on the basis of an assignment by the respective federal state; but here, too, it must be stated clearly that in no case has it been possible to establish the RWI as part of the official reporting of a federal state. In some German federal states it has at least been possible to repeat the RWI calculation once, but at the present time, in no federal state is there any interest in taking note of the RWI periodically, for example annually or every two or four years, maybe with the exception of Brandenburg. Often it is the case that the immediate usability of the results for practical work determine acceptance or criticism of the NWI/RWI: It is politically quite clear that if the commission for the calculation was given by a state chancellery or a ministry, there is the hope and also the expectation that the result of the index would not be too negative and thus support government policy at least in an indirect way. Conversely, actors who count themselves as part of the opposition are interested in seeing their existing criticism of “inaction” or “wrong” government policies confirmed. This refers not only to the overall result, but also specifically to individual components that can be associated with a certain design of the respective policy, for example in the field of mobility or generally energy and climate policy. There was a case where the governing parties saw themselves supported by the index and used it for political advertising for a certain time; in another federal state, the opposition lost all interest in “their” RWI, since the state had quite presentable results in a whole series of components compared to other federal states.

Negotiations were initiated with a number of other federal states with the aim of calculating a first time series and, in the best case, to periodically update the current values. During the discussions it became clear that there is hardly any basic knowledge about the construction of GDP and of alternative indices, but there is a vague feeling of dissatisfaction and a certain familiarity with the fact that criticism of GDP as a welfare measure has spread.

There is a committee of the departments of the statistical offices of the federal states that are entrusted with environmental-economic accounting.²¹ Its

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²¹ The body is called Umweltökonomische Gesamtrechnungen der Länder; it annually produces its own indicator report. For the most recent report see Umweltökonomische Gesamtrechnung der Länder, ed., Indikatorenbericht (Düsseldorf: Information und Technik Nordrhein-West-
work is of great importance because in the Federal Republic of Germany statistics are first and foremost a responsibility of the federal states. Districts and independent cities have standardized delivery obligations towards the federal state, just as the federal states have delivery obligations towards the federal office of statistics (Statistisches Bundesamt). In principle, the work continues between the member states of the European Union and Eurostat, which is why the introduction of a statistical innovation can only be realized in a procedure coordinated among the various levels.

The working group at the level of the federal states has dealt intensively with the NWI at one of its half-year meetings, but could not agree on a common procedure, and finally did not “adopt” the regional NWI. In this respect, the opportunity to standardize the regional variant of the NWI was not taken, and its introduction in the federal states remains dependent on the interest of individuals and the respective constellation in supplementing welfare reporting. The decision-making process often drags on for a long time; in some federal states, the introduction of the RWI or other alternatives have probably failed for good.

Finally, a special feature is the activity of the Health and Environment Department of the City of Munich. A working group of this office had already considered the transferability of the NWI to the city of Munich in 2009 and commissioned FEST to conduct a feasibility study. This work was the first in which an application of the NWI to a smaller unit of accounting than a nation was examined. In two meetings between the working group and the author of the study, the data situation and especially the sometimes problematic delimitations for smaller territorial units were discussed. For example, the energy consumption of electricity is attributed to the location of the power plant, which does not correspond to the location of energy consumption in all cases. In the end, the research report on Munich draws a rather sobering balance, which at the time was mainly due to the reliability of the poor data situation: Above all, the auxiliary procedures for making projections corresponding to a number of components through correlating substitute variables such as the share of the population or the share of Munich’s GDP in the respective total values for Germany were not always satisfactory. In this way, the result came up with such a cumulative margin of uncertainty that in the end it was decided not to publish the time series of the NWI for Munich.²² Now, however, in the winter of 2020/2021,
it was possible to start a new attempt together with the city of Munich, which will, in all likelihood, be completed successfully in the coming summer.

Overall, a partly optimistic, partly pessimistic résumé can be drawn. The theoretical concept of the NWI as a new welfare measure is not yet fully established; there are new theoretical debates that must be taken into account whenever a new welfare measure is considered.\textsuperscript{23} Domestic and foreign effects of components need to be better delineated, and immediate effects of components on welfare need to be separated from developments that will be relevant only in the future. The monetarization of important components can only be carried out on the basis of normative decisions: these are essential questions that will continue to accompany the discussion. Data availability, on the other hand, has improved significantly in recent years. It has been shown that it is possible to work continuously with the NWI and its regional variants, and that the relationship between the development of GDP and NWI is very different in different phases. This allows for a more substantial and, above all, empirically enriched discussion on the relationship between growth and welfare, and many political discussions on the concept of prosperity and welfare in one of the materially particularly rich countries of the world are stimulated here with a new perspective. Progress in changing societal reporting systems, however, takes an extremely long time. Above all, however, there is resistance in the practice of statistical implementation. “The toils of the mountains,” wrote Bertolt Brecht in 1949 in his poem “Perception,” “lie behind us. Ahead of us lie the travails of the plains.”