



December 9, 2015 (new book: Welfens et al. (2015), Towards Global Sustainability, Heidelberg)

*** COP21: Paris Climate Conference Making Modest Progress, * Insufficient Emphasis on Green Innovativeness and Sustainability Indicators; * EIIW-vita Indicator as innovative composite sustainability approach – for governments, investors, citizens and international organizations plus green NGOs**

EIIW-vita Sustainability Indicator: A new approach for the Paris Climate and Energy Conference (COP21)

The UN has organized a large climate conference, taking place in Paris during the first half of December 2015 (Nov. 30 to Dec. 11), that should bring a follow up framework for the Kyoto Protocol: Reducing greenhouse gas (GHG) emissions is high on the agenda of the conference which brings together about 150 heads of governments and presidents from all around the world. Germany's self-imposed goal for cutting GHG emissions amounts to a reduction of emissions by 40% compared to 1990. Until 2050 government wants to achieve a reduction of 80-95% so that an almost climate-neutral economy would be established in Germany. Previously, in 2007, the European Council of the EU had announced the goal of cutting GHG emissions by 20% (compared to 1990) by the year 2020; the reduction would achieve 30% if other countries would come up with similarly ambitious reduction plans. Secondly, the share of renewable energy in total energy consumption is to achieve 20% by 2020. Thirdly, energy efficiency is to be raised considerably – compared to previous forecasts – so that energy consumption should be reduced by 20%. In October 2014 the European Council declared that there will be a continuation of the triple goals established previously. The share of renewable energy in total EU energy consumption is to be raised to 27% by 2030 – the new reference point ahead. Energy efficiency is to be raised further so that there should be a reduction of energy consumption by 27%, compared to 1990. GHG emissions should reduce by 40%. CO2 emission certificate trading is expected to increase. However, this focus is rather narrow and overlooks the need for more environmental innovation and the opportunities associated with a broader Schumpeterian climate policy approach as suggested by the EIIW-vita Sustainability Indicator and related policy suggestions (see the book Welfens et al., 2015). This new composite sustainability indicator has been developed since 2010 (*Journal International Economics and Economic Policy*) – the financial support of the Vita Foundation, Oberursel, is gratefully acknowledged.

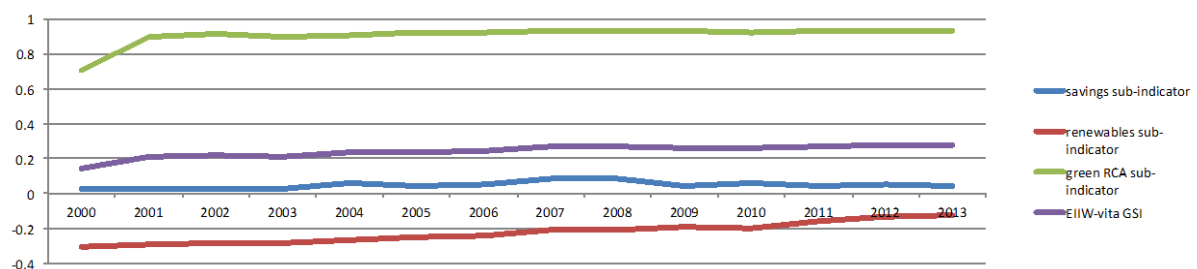
In Paris, countries' governments are expected to make pledges declaring the aim of major reductions of GHG emissions. The international conference is, however, not emphasizing green innovations and the export of environmentally-friendly products, respectively. This, however, is done by the EIIW-vita Sustainability Indicator which was presented for the first time in the *Journal International Economics and Economic Policy*. It is a composite indicator that is in line with the OECD methodology for composite indicators. This innovative indicator (**Global Sustainability Indicator GSI**), which covers 143 countries, has several advantages

- From a methodological perspective, it can be considered as adequate in economic, ecological and economic policy terms; moreover, it gives adequate signals for investors interested in long term growth prospects plus sustainability. In November/December 2015, Allianz and ING have announced that investment will no longer support companies with a high share of CO2 intensive production in the natural resources sector. The aforementioned insurance company and bank have obviously

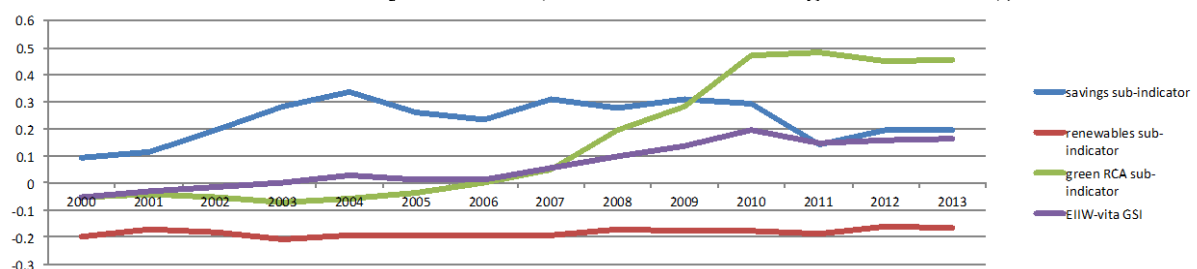
followed an earlier announcement by the Norwegian national wealth fund. The approach of the EIIW-vita Indicator has three pillars: Renewable energy, the “true” savings rate and international competitiveness in environmentally-friendly exports. The indicator calculates national indicator values for all 143 countries for which data are available (this is equivalent to about 95% of the world economy).

- The critical pillars of the share of renewables in energy, the true savings rate (based on the World Bank concept) and green export competitiveness – the latter calculated by the EIIW for more than 140 countries, using OECD definitions for environmentally-friendly products – puts the focus on a long term concept for sustainable growth. The green export competitiveness indicator reflects previous and current innovation dynamics in the economy in general and in the field of environmentally-friendly products, respectively. In an enhanced approach, water productivity has also been added. An adequate positive net savings rate – net means that capital depreciations have been taken into account – will allow future generations to enjoy a similar standard of living as the previous generation. Compared to the traditional savings rate in the System of National Accounts, the World Bank concept adds expenditures on human capital formation (relative to GDP) and subtracts the depreciation rate of natural resources as well as damage effects related to both particulate and CO2 emissions. Some OPEC countries, Mexico and Russia have weaker true savings rates than the official savings statistics show. As regards the overall EIIW-vita Sustainability Indicator, Germany has a leading position. China has improved its position considerably during the period between 2005 and 2012, mainly due to an improved position in green export competitiveness (one should, however, not overlook the recurrent problems that China faces in terms of water quality management and air quality standards).
- The EIIW-vita Sustainability Indicator is the only OECD-methodology compatible sustainability indicator that can be calculated for individual countries and the world economy, respectively. All sub-indicators – pillars - are in the range -1/+1. The situation of the world economy can be assessed on the basis of all national indicators (weighted or unweighted); over time a slight improvement can be found. The indicators (2000-2012) are shown here for Germany and China.

EIIW-vita Global Sustainability Indicator (EIIW-vita-Nachhaltigkeitsindikator), Germany



EIIW-vita Global Sustainability Indicator (EIIW-vita-Nachhaltigkeitsindikator), China



Investors and politicians are very much encouraged to take the EIIW-vita Sustainability Indicator into account. The high export-GDP ratio of certain countries – such as Germany or Switzerland – should be discussed, not only in a macro perspective, but also because the structure is important; successful green specialization implies that the net exporter countries contribute to problem-solving in the field of sustainability abroad. As regards the broader environmental policy approach, it is strange that Denmark's environmental tax revenue relative to GDP is around 5%, while that of the US is only 0.5% - that of China is about 1.5% in 2015. More joint international green R&D can be recommended. Joint international research projects and innovations are, unfortunately, not on the agenda in Paris.