

Climate Neutrality in The Balance of Economic Growth

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Abstract

Modern economic development also generates external costs. One of these costs is the high emission of greenhouse gases, including CO₂, which causes climate change through the greenhouse effect. Some scientists maintain that the impact of CO₂ is irrelevant to the greenhouse effect. For example, Prof. R. Pietrzak claims that "96% of all greenhouse gases is water vapor - difficult to study and sell! At the same time, it is the least stable component of the atmosphere, because it stays in it for 10 days. The atmosphere itself, as a reservoir of nature, is small and water vapor moves quickly in it. The remaining 4% is carbon dioxide (...). Whether man existed or not, the climate changed. Now it is getting warmer - this is an undeniable fact and we would not be able to bring about this with any emission of carbon dioxide. The atmosphere (excluding the aforementioned water vapor) consists of nitrogen, oxygen, argon, and the remaining gases constitute 0.038%, of which 0.035% is CO₂, with this 0.035% being carbon dioxide, which comes from nature and the one we emit. It is assumed that of this negligible 0.035%, only 3-5% is produced by humans [Merkuriusz, 2017]. Others argue that such an influence exists and present evidence for this, for example that "the content of the carbon isotope ¹²C in the atmosphere is increasing (which translates into a decrease in the relative content of the carbon isotope ¹³C). This indicates that the source of additional CO₂ are fossil fuels, which contain proportionally more carbon isotope ¹²C relative to ¹³C than inanimate matter" [Popkiewicz, 2013]. The authors of the article assume that even if human activity did not have a decisive impact on climate change, human involvement was the proverbial straw that tipped the scales in favor of climate deregulation. The aim of the article is, on the one hand, to show the controversy surrounding the greenhouse effect by citing different views on the subject, and on the other hand, to indicate the largest emitters of greenhouse gases and link this growth with economic growth indicators. Generally, there is a phenomenon of correlation between economic growth and increased greenhouse gas emissions. However, there are cases of countries indicating a lack of such correlation in certain periods. The authors also propose correcting the GDP indicator and potentially other economic growth indicators by the climate balance, the so-called climate neutrality indicator, in order to draw the attention of the economic and scientific community to the importance of this type of external cost, which is greenhouse gas emissions. Large economies are trying to use their

advantage and participate as little as possible in the fight against climate change. Such a fight involves, among other things, actions to reduce greenhouse gas emissions, switching economies to a circular economy, etc. For example, the United States, under Donald Trump's presidency, rejected the postulate of the impact of greenhouse gas emissions on climate change. Many other politicians were also eager to adopt such an attitude. The presented indicator, which corrects national income by the degree of advantage of greenhouse gas absorption over emission, is primarily of cognitive nature. In accordance with Coase's theorem that in the case of external effects, the interested parties can reach an agreement and work out a certain package of arrangements ensuring the internalization of external effects and efficiency" (Stiglitz, 2004, p. 259), such an indicator or group of indicators would indicate which countries and to what extent should contribute to the internalization of these external costs related to the lack of climate neutrality. A certain good direction was the adoption and amendment in March 2023 in the European Union of the Land Use and Forestry Regulation on greenhouse gas emissions and CO₂ removals by the land use and forestry sector - LULUCF. This amendment increases the EU-wide CO₂ removal target, which is to be achieved by 2030. This will contribute to the implementation of the overall EU plan to reduce net emissions by at least 55% by the end of 2030 and achieve climate neutrality by 2050. The EU land use and forestry sector absorbs more CO₂ than it releases into the atmosphere. It is therefore a net sink. Trees and other plants take CO₂ from the atmosphere in the natural process of photosynthesis (Ready for 55).

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