

Climate Policy and Economy Austria

Reduced climate-damaging emissions in industry



Industry causes a lot of CO2 emissions. Austria's metal industry is now seeing a reduction in emissions. (Photo: Rob Lambert on Unsplash)



According to an innovative analysis, around a quarter of the reduction in CO2 emissions in Austria can be attributed to national climate policy. The most significant greenhouse gas savings were achieved through regulations in the metal industry.



February 26, 2025 - Since 2005, Austrian greenhouse gas emissions have fallen by 26 percent. But what proportion of this can be attributed to climate policy - and which measures were actually effective? Researchers at the WU Vienna University of Economics and Business have developed a new method to assess the effectiveness of climate policy measures. After the Fiscal Council under former WU Rector Christoph Badelt dealt with this question and drew an ambivalent conclusion, researchers from the WU Department of Economics are now painting a similar picture in a current analysis.

In a new study published in the renowned journal *Scientific Data*, Talis Tebecis and Jesús Crespo Cuaresma examined the development of emissions in all OECD countries and compared them with their gross domestic product and population development. "If you take these two main influencing factors out of the equation, you are left with fluctuations that are most likely due to climate policy," says Tebecis. "These statistical outliers can often be linked to specific political measures. Our data set can therefore serve as a basis for checking the effectiveness of climate measures."

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The researchers identified a total of 62 of these statistical outliers for Austria. "Compared to the other EU countries, that is very few - in Germany, for example, there were 131 and in Ireland as many as 261," says Talis Tebecis. From a peak of 79 million tons, Austrian emissions have fallen by around 20 million tons to date. The researchers' data suggest that 6.1 million tons - a good quarter of this emission reduction - can be attributed to political climate measures.

Significant savings in the metal industry

The two researchers also analyzed which Austrian economic sectors have seen the greatest reduction in emissions. The metal industry ranks first in terms of reducing average emissions. According to the new analysis, national and European regulations have clearly had an impact in this traditionally very emissions-intensive sector.

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Significant savings were also seen in biomass and waste incineration plants. "This is a sign that the regulatory support for sustainable biomass production and the high efficiency standards in this area are taking effect," said Tebecis, commenting on the results. According to the study, the Austrian electronics industry was also able to significantly reduce its emissions. In contrast, there were only small reductions in the areas of electricity and heat generation, wastewater treatment and manure management. There is still a lot of room for improvement here.

For Jesús Crespo Cuaresma, head of the Department of Economics at WU, this data set is an important piece of the puzzle in research on climate policy: "When it comes to identifying the best strategies, the devil is often in the details. That's why we went to such a detailed level of analysis and examined 37 different sectors and all major greenhouse gases - not just CO₂." The two researchers' data can be used to make similar calculations for all OECD countries. They therefore hope that this data will help decision-makers to make empirically sound climate policy decisions.

The study was carried out as part of the eXplore! initiative, which aims to use research findings to better link scientific theory with economic practice.

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