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## EFFECTS OF CO<sub>2</sub> CERTIFICATE TRADING ON THE LOGISTICS SECTOR IN THE EUROPEAN ECONOMIC AREA: A COMPARATIVE ANALYSIS OF THE EUROPEAN AND GERMAN STRATEGIES

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### ABSTRACT

CO<sub>2</sub> certificate trading is a key instrument for reducing greenhouse gas emissions. This article presents the status quo of the known and planned regulation of the logistics industry at the turn of the year 2024/2025. A differentiation is made between the aviation, shipping, road and rail transport sectors. The analysis shows that aviation has already been regulated since 2012 and accounts for around 4-5% of the emissions covered by the EU Emissions Trading System (EU ETS). By contrast, shipping was only integrated into this system in 2024 and is expected to account for around 3 %. Road transport is to be included in the EU ETS 2 from 2027 and is expected to account for 10-15% of regulated emissions. Rail transport, on the other hand, will remain largely exempt from regulation as it is considered a low-emission means of transportation by the EU. A comparison of this picture, which emerges through European control mechanisms, with the current approach of the Federal Republic of Germany with regard to urgently needed investments in the German railroads reveals considerable differences. CO<sub>2</sub> certificate trading is a key instrument of EU climate policy for reducing greenhouse gas emissions, particularly in the logistics sector. This includes aviation, shipping, road and rail transport, each of which is subject to different regulatory measures. While aviation and shipping are already integrated into the EU ETS, road transport will not be included until 2027. Rail transport, on the other hand, remains largely exempt, as it is to be promoted as a low-emission transport sector. Gradual regulation will lead to rising costs, increased investment in low-emission technologies and potential modal shift effects in favor of sustainable means of transport such as rail. In conclusion, based on the currently recognizable situation, a difference between the European strategy (creation of increasing incentive structures for shifting large logistics components to rail) and the German strategy (too little investment for the specified pace of transformation) becomes clear.

**Keywords:** CO<sub>2</sub> certificates, sustainability, logistics, rail transport, aviation, shipping, road transport.