

## **Dissertation title:**

Internationale Klimapolitik und die deutsche Nichteisen-Metallindustrie - Eine Bewertung der kompetitiven Rückwirkungen vor dem Hintergrund der Eingliederung in das Europäische Emissionshandelssystem (EU-EHS)

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Being a highly energy-intensive raw materials industry, the German non-ferrous metal industry stands at the beginning of the value-added chain and its economic importance for the manufacturing sector results from its strong interrelations with a multitude of other industry sectors. In addition to the automotive manufacturing and the construction industry, the electrical and mechanical engineering industries rank among its most important customer industries. To a high degree, the cost structures in this industry are influenced by developments in the international energy and commodity markets as well as economic influences. Due to high export ratios, the economic development abroad is of particular importance in this context. As the end products are listed on the London Metal Exchange and therefore subject to global trade, the enterprises of the German non-ferrous metal industry are facing international competition from the non-European countries on the sales side. Therefore, the primary goal of this dissertation is to find out which effects the inclusion of the German nonferrous metal industry into the EU Emissions Trading System (EU ETS) will cause, if any, when compared to their international competitors who may be subject to less stringent climate change policy frameworks.

The results from the expert survey show that enterprises of the German non-ferrous metal industry mainly associate additional risks, financial burdens, and rather small potential for added value with their inclusion into the EU ETS. The chances arising from the inbuilt market mechanism and the connection to the project-based Kyoto mechanisms under international law are undermined by the high efficiency standards of the facilities being subject to emissions trading, the risks and barriers associated with executing emissions reduction projects, and the retention of invested resources coming along with the uncertain framework conditions of the EU ETS. Furthermore, the uncertain regulatory conditions of the EU ETS lead to the postponement or even omission of capital-intensive investments, which would especially be necessary for



German primary production sites, as many of the facilities subject to emissions trading are already in the last third of their technical life cycle.

In addition, analyses conducted in the aftermath of the expert survey show that the German non-ferrous metal industry will be subject to competitive repercussions both within and beyond the EU and that financial burdens directly related to the regulatory framework of the EU ETS will constantly increase until the end of the third trading period. The still existing quality lead and advantages in distribution structures compared to international competitors will therefore probably diminish in the years to come. Beyond that, the results of the analyses show that an elimination of the existing exemptions would enhance the risk of carbon leakage of energy-intensive parts of the German non-ferrous metal industry's value-added chain and partly lead to immense additional financial burdens.

Regulatory agencies should therefore focus on the establishment of better predictability and reliability of the regulatory framework in the course of the EU ETS' third trading period. Clear regulations would contribute to the reduction of existing uncertainty, which, among other things, undermines investment activity and leads to intensified distortion of competition on an international level.