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Emissions Allowances: Proposal for a Mechanism to Prevent Excessive Price Increases[3]

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Summary

- From an economic perspective, climate change represents a major market failure exacerbated by the existence of externalities: economic actors can burn fossil fuels without bearing the costs of the damage caused. **The most effective way to address this market failure is by pricing greenhouse gas emissions.** Price signals that include the costs of damage provide better information about the impacts of individual activities on society, and enable economic actors to make better decisions.
- **The European Emissions Trading System (EU ETS) puts a price on greenhouse gas emissions and is a suitable tool for addressing climate change.** For such a system to function effectively, it must appropriately set future emission trajectories (the amounts of allowances issued) and include safeguard mechanisms to prevent excessive price fluctuations. Prices that are too low would fail to achieve climate targets, while excessively high prices would lead to unbearable impacts on citizens and increase resistance to such measures.

[3] This study represents only the views of the authors and not the official position of the Economics Institute of the Czech Academy of Sciences, nor those of the Charles University Center for Economic Research and Graduate Education. It is based on the academic study by Van Koten (2025), which is available as a working paper at . The authors would like to thank Kateřina Kolouch Grabovská (Fakta o klimatu), and Jan Hošek (Czech National Bank) for their valuable comments and advice on the IDEA study derived from the working paper. Any remaining inaccuracies or errors are the responsibility of the authors. The study was created with the support of the AV21 Strategy program "Sustainable Energy".

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- **The current safeguard mechanisms in the EU ETS, particularly the Market Stability Reserve, are insufficient to stabilize prices and may even amplify price shocks.** Ambitious climate targets and the strict initial allowance volumes in the newly introduced emissions trading systems for transport and buildings (EU ETS 2) will increase pressure on allowance prices. Without strengthening these safeguard mechanisms, there is a real risk of very high prices and consequent costly impacts on citizens.
- **We recommend introducing a price collar that sets a minimum and maximum price for emission allowances through a minimum auction price and a price ceiling.[4] This mechanism is currently used in several emissions trading systems in other regions and is well supported by academic economic literature. A price collar is a more reliable and effective mechanism for price stabilization than are other adjustments to the Market Stability Reserve.**
- **Reasonable allowance prices can help in meeting emission targets without imposing unbearable impacts on citizens and the economy.** Empirical studies highlight the effecti-veness of the EU ETS in reducing emissions and find no negative effects on the economy. At an EU ETS 2 allowance price of €55 per ton of CO_2, the direct annual cost for an average Czech household would increase by CZK 4,975, which represents 0.78% of its budget.
- **Households can reduce the additional costs caused by emission allowances by switching to cleaner alternatives, which is precisely the intended effect of emissions trading.** However, for some households, alternatives may not be available or financially accessible. Moreover, the impact on certain households will be significantly higher than the average. Therefore, it is crucial that the state is able to identify vulnerable households and provide them with adequate and effective support through the Social Climate Fund and other revenues from emission allowances, which should be introduced concurrently with the EU ETS.
- **Compared to economic estimates of climate-related damages, current allowance prices do not appear to be excessively high.** Moore et al. (2024) report an average estimate of damages caused by greenhouse gas emissions in the academic literature at $165 per ton of CO_2. When accounting for the quality of individual studies, they arrived at an even higher average estimate: $354 per ton of CO_2. These estimates carry a high degree of uncertainty—actual damages may be lower, but could also be significantly higher. Nevertheless, they confirm that every reduction in greenhouse gas emissions today helps mitigate future global damages. Emission allowances can effectively reduce emissions at relatively low cost, but truly addressing climate change requires coordinated global action.

[4] A price cap can be implemented, for example, by allowing entities to purchase additional allowances at this price before surrendering their allowances if they do not have enough to submit. Trading in additional allowances can also be prohibited. It is common practice to increase the price cap annually by a predetermined factor and, as a rule, also by inflation.