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Stranded Asset Risk and Political Uncertainty: The Impact of the Coal Phase-out on the German Coal Industry

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Abstract

We assess the value of stranded coal-fired power plants in Germany due to the critical phase-out by 2038. Within a Monte Carlo simulation, the scenarios under consideration (a slow decommissioning at the end of the technical lifetime in 2061, the highly probable phase-out by 2038, and an accelerated phase-out by 2030) are additionally assigned distributions to display the uncertainty of future developments. The results show an overall stranded asset value of €0.4 billion given the phase-out by 2038 and additional €14.3 billion if the phase-out is brought forward by eight years. This study also depicts the impacts of carbon pricing and the feed-in from renewable energy sources on the merit order and eventually the deterioration in economic conditions for hard coal and lignite power plants. Lastly, we illustrate immediate concerns for share prices of affected companies and contributes to closing the research gap between stranded physical and financial assets.