

## Financial Assessment of the Hard Coal Mining in the Chosen Region in the Czech Republic: Real Options Methodology Application

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**Abstract :** This paper is aimed at the financial assessment of the hard coal mining in a given region by real option methodology application. Hard coal mining in this mine makes net loss for the owner during the last years due to the long-term unfavourable mining conditions and significant drop in the coal prices during the last years. Management is going to shut down the operation and abandon the project to reduce the loss of the company. The goal is to assess whether the shutting down the operation is the only and correct solution of the problem. Due to the uncertainty in the future hard coal price evolution, the production might be again restarted if the price raises enough to cover the cost of the production. For the assessment, real option methodology is applied, which captures two important aspect of the financial decision-making: risk and flexibility. The paper is structured as follows: first, current state is described and problem is analysed. Next, methodology of real options is described. At last, project is evaluated by applying real option methodology. The results are commented and recommendations are provided.

**Keywords :** real option, investment, option to abandon, option to shut down and restart, risk, flexibility

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