

# Riding the Nordic German Power-Spread: The Einar Aas Experiment

*Christian-Oliver Ewald,<sup>a</sup> Erik Haugom,<sup>b</sup> Gudbrand Lien,<sup>c</sup> Pengcheng Song,<sup>d</sup> Ståle Størdal<sup>e</sup>*

---

In 2018 the financial world noticed the Norwegian trader Einar Aas who seemed to effortlessly exploit differentials in the risk premia in Nordic and German electricity futures, hoping that over time, due to better integration of the two markets, these differentials would diminish, which would then generate spectacular profits. It looked good for Einar Aas for a long time, but then a wet weather forecast for Norway in September 2018 (in combination with rising emission prices) resulted in futures prices moving into the wrong direction, which brought his strategy to a fall. It was a spectacular fall, creating a loss of 170 million USD, enough to shake up Nasdaq clearing and raising concerns about financial contagion and a possibly bigger crisis.

Inspired by the initial success and eventual failure of Einar Aas' trading strategy, we investigate the question whether there is evidence for possible arbitrage from engaging in both the Nordic and German electricity futures markets simultaneously and how a market beating trading strategy could be constructed and assessed against benchmarks. To do this, we first assess the risk premium and relevant Sharpe values for the two markets and observe significant differences. This is followed by a discussion as to how far the different risk premia and Sharpe values alone are evidence of arbitrage. The answer is, they are not. However, in form of a realistic experiment which is based on the dataset relevant to the Einar Aas case, we then demonstrate that an intelligently chosen suitable pairs trading strategy (long-short) can indeed produce positive alphas within a CAPM setting. This presents evidence for possible arbitrage and shows that we have identified a market beating strategy, at least within a CAPM context.

Of course increasing popularity of the relevant long-short strategies and simultaneous engagement in the two markets by a large number of agents will eventually, through balancing supply and demand, eradicate the sort of arbitrage strategies discussed here. Our paper therefore contributes knowledge that can eventually improve market efficiency and prevent crises.

a Corresponding author. Adam Smith Business School - Economics, University of Glasgow, Glasgow, G12 8QQ, United Kingdom and Department of Economics, Inland Norway University of Applied Sciences, Lillehammer, Norway. E-mail: christian.ewald@glasgow.ac.uk and christian.ewald@inn.no

b Department of Economics, Inland Norway University of Applied Sciences, Lillehammer, Norway

c Department of Economics, Inland Norway University of Applied Sciences, Lillehammer, Norway

d National School of Development, Peking University, China

e Department of Economics, Inland Norway University of Applied Sciences, Lillehammer, Norway