



## Einar Aas' fall will hurt liquidity in the financial power market

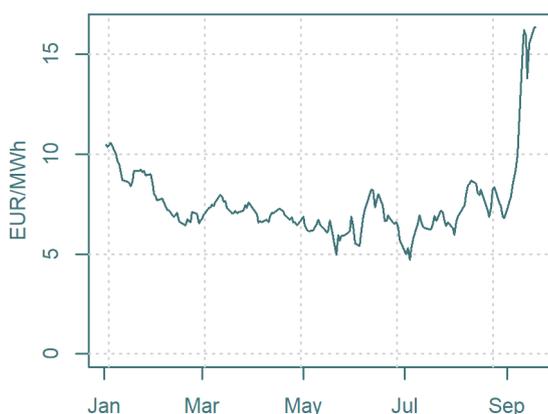
*Einar Aas' spectacular betting on the spread between Nordic and German power prices has already hurt other players in the market as they top up their contributions to Nasdaq's default fund. In the medium and longer term his default might hurt liquidity at one of the most mature and (at least up until now) well-functioning financial power markets in the world, making it more difficult and expensive for utilities to hedge their production portfolios and for industrial players to hedge the price of an important production input.*

### A failed bet on the Nordic/German price spread

Einar Aas has for more than 15 years been a mythical figure in the Nordic financial power market, realising tremendous profits year after year. Last week his fortune was probably wiped out entirely after a failed bet on the Nordic/German price spread.

According to news reports, Aas had a position of 23 TWh in the Nordic market and 11 TWh in the German market, betting that the spread between the two markets would narrow. However, the spread increased significantly to a record high of 15 €/MWh on higher CO<sub>2</sub> and coal prices and forecast wet weather in the Nordics. The price movement from the end of trading on Friday to the end of trading Monday, seen in Figure 1, was 17 times higher than a normal day's variation.

Figure 1 Difference between Nordic and German power prices



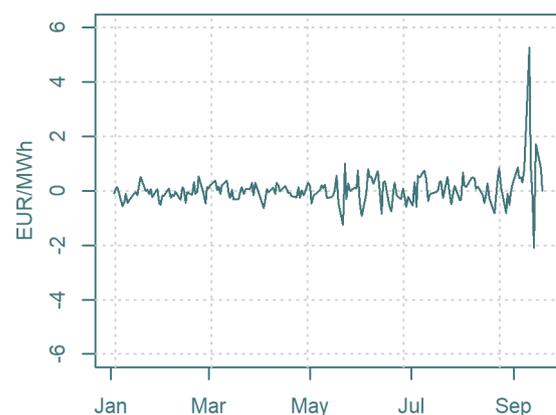
Source: Montel

Aas' position was so large compared to the depth of the market that he was unable to take a "stop loss" by selling his position to other players. He might, in fact, have made the situation worse by trying to sell massive volumes into an already falling market. As a

result, Aas failed to fulfill his margin call and Nasdaq took over his position.

What happened on Monday last week was so unlikely that it should "never" have happened, according to statistician Gunnar Løvås. The difference between the German and Nordic power prices increased by around 6 EUR/MWh (Figure 2). The likelihood of experiencing a daily increase of over two euros per MWh would be in the order of one in a thousand. The probability of experiencing a daily change of over six euros per MWh, as actually occurred on Monday, September 10, is microscopically small. This begs the question of how much of this movement was driven by Aas himself trying to turn his position around.

Figure 2 Price change relative to the previous day



Source: Montel

Aas' position was sold by Nasdaq in a closed auction with four participants. One company bought the whole position for an undisclosed sum. To cover the loss, Nasdaq had to withdraw about 70% of their default fund and all clearing members were asked to fill up the fund based on their exposure at Nasdaq. The default has therefore hurt all 166 clearing members on the exchange.

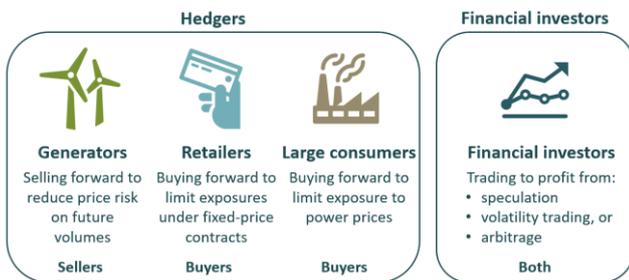
## A well-functioning financial power market is crucial for utilities', retailers' and large consumers' ability to mitigate risk

A well-functioning financial power market is essential for both producers and consumers to be able to efficiently hedge their exposure in the physical power market. It provides a basis for better risk sharing, more efficient pricing and lower risk premiums. For power intensive industries, financial derivatives play a key role in risk management. Forward hedging of the power price allows firms to trade away temporary shocks and secure their margins.

Financial derivatives also play a key role in utilities' risk management. All else being equal, power generators' profits will increase when they can mitigate price risk at a lower cost. Similarly, the owners can realise more stable and higher dividends when the hedging is done in a well-functioning financial market.

So, what are speculators like Aas' role in this market? First, they provide much needed liquidity to the market and thereby improve efficiency. Second, they help address the mismatch in the volumes that producers and suppliers want to hedge. Though producers would like to hedge their output, an increasing number of consumers are choosing spot contracts that remove suppliers need to hedge. There are therefore more natural sellers than buyers in the market and speculators can close some of this gap.

Figure 3 Market participants roles



## Volumes in the financial market have more than halved since 2008 and Aas' fall might contribute to even lower liquidity

Nasdaq has seen traded volumes in the Nordic financial power market fall 58% since 2008. The decline in liquidity has been attributed to a range of factors and may well have more than one cause. A lack of liquidity or rather Aas' large position relative to the liquidity of the market also explains why he did not manage to close his position. Aas' fall will lead to lower liquidity for two reasons:

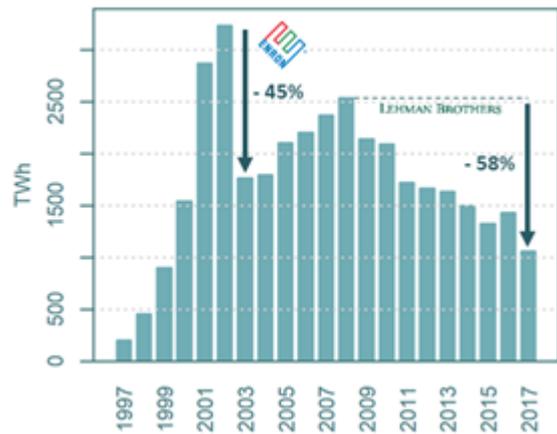
- 1) Aas, who himself traded large volumes, will no longer provide liquidity to the market
- 2) Loss of confidence in Nasdaq and the market in general might deter new entrants and lead to lower trading activity from current members

A vicious cycle could also magnify initial shocks as participants withdraw in response to falling liquidity.

## The market has been tested before

This isn't the first time in the market's history that it has been tested. The Nordic power market proved a success from its start in the '90s, providing a well-functioning wholesale market coupled with a simple, efficient and liquid financial market. Volumes grew rapidly, maybe too rapidly, and doubled from 2000 to 2001.

Figure 4 Cleared volumes, OTC and on NASDAQ OMX/Nord Pool (TWh)



Source: NASDAQ OMX, Nord Pool, Montel

The first real test of the financial market came in 2002/2003, when Enron collapsed and took with them almost half of traded volumes. As is often the case, the crisis was driven by a mix of stupidity, greed, recklessness, risk-taking and hope. However, in the years that followed, all arrows continued to point upwards. Coal prices were up; gas prices were up; the carbon market came into force with high prices, volatility increased, and the power price went on to reach new highs. Financial volumes followed, although they never reached the levels seen before Enron's collapse.

In 2008, we saw the effects of a mix of stupidity, greed, recklessness, risk-taking and hope hit the market again in the form of the global financial crisis. 2017 volumes showed that eight years after Lehman Brothers' collapse cascaded through the financial system, more than half of the liquidity in the financial market had vanish.

Explanatory factors are numerous. Many blame new regulations with tougher reporting requirements and higher trading costs. Others point to small price areas with frequently changing borders, which may make the system price an ineffective hedge. Still more note low and – up until now – declining power prices, which limit the downside and hence the incentive for utilities and industrial players to hedge. Yet others point to failure to innovate and develop products the market wants.

Now, the billion-dollar question is if Aas' has given the Nordic market the killing blow, or whether the market will recover and start growing again backed by increasing CO<sub>2</sub> and spot prices, and as an important source of necessary hedging for market actors.

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