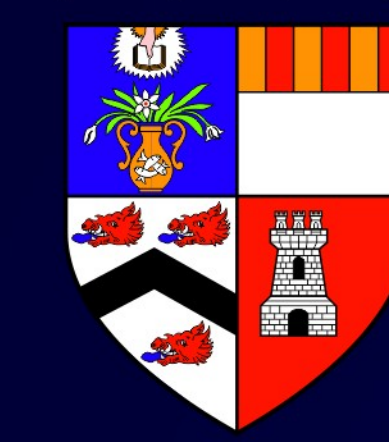


# To what extent does UK and EU gas storage utilisation rates affect the price of natural gas?

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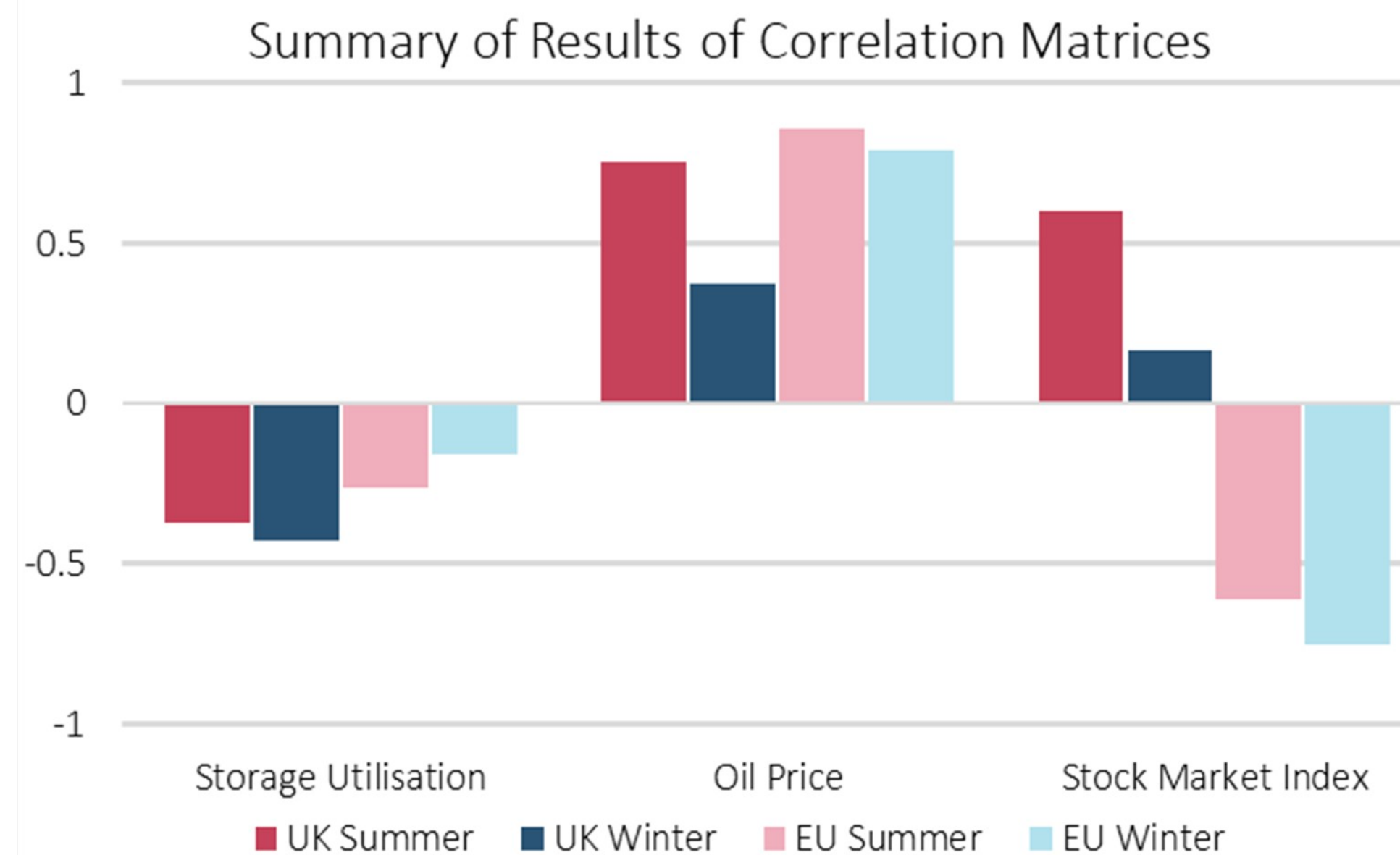
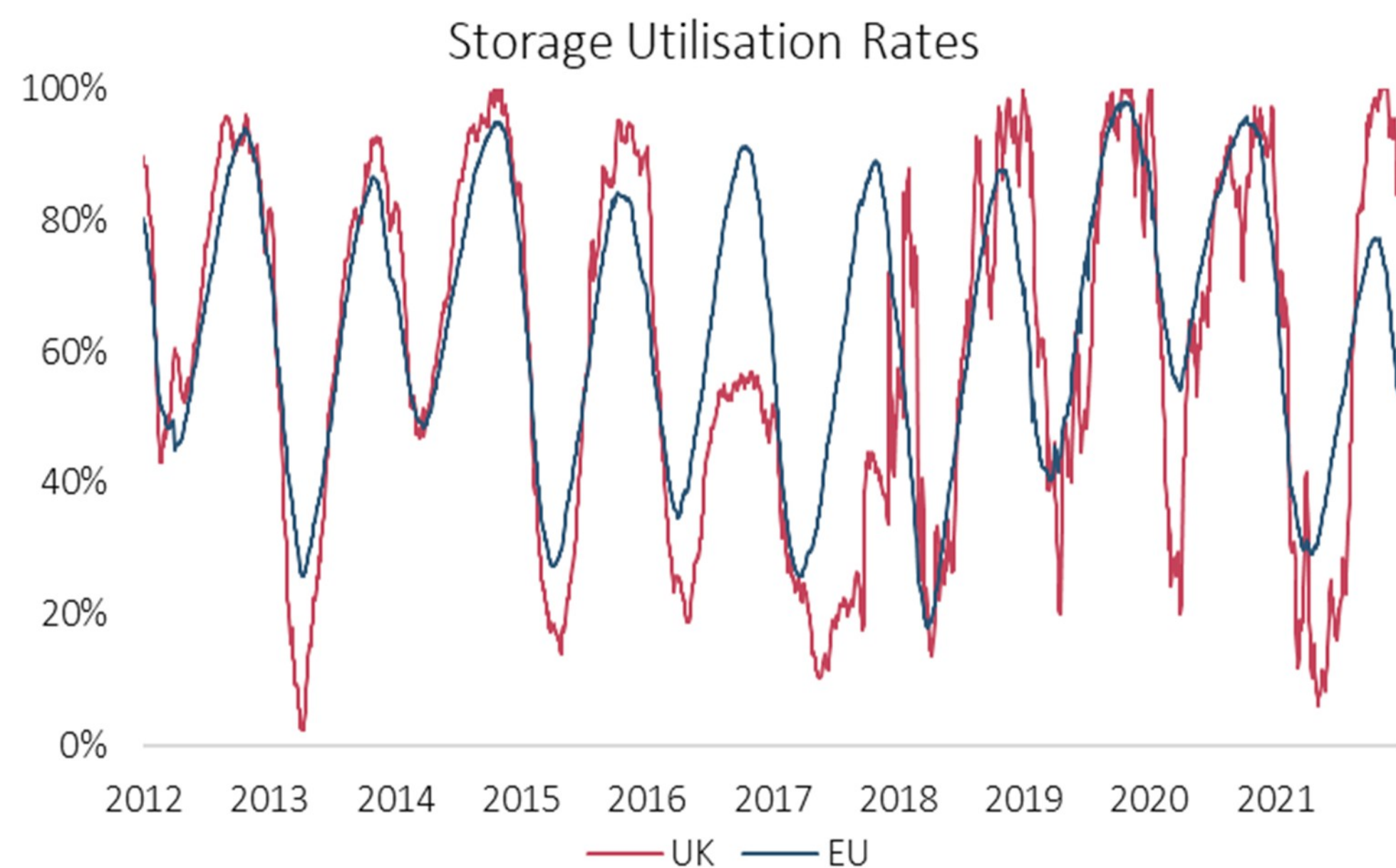


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## Context

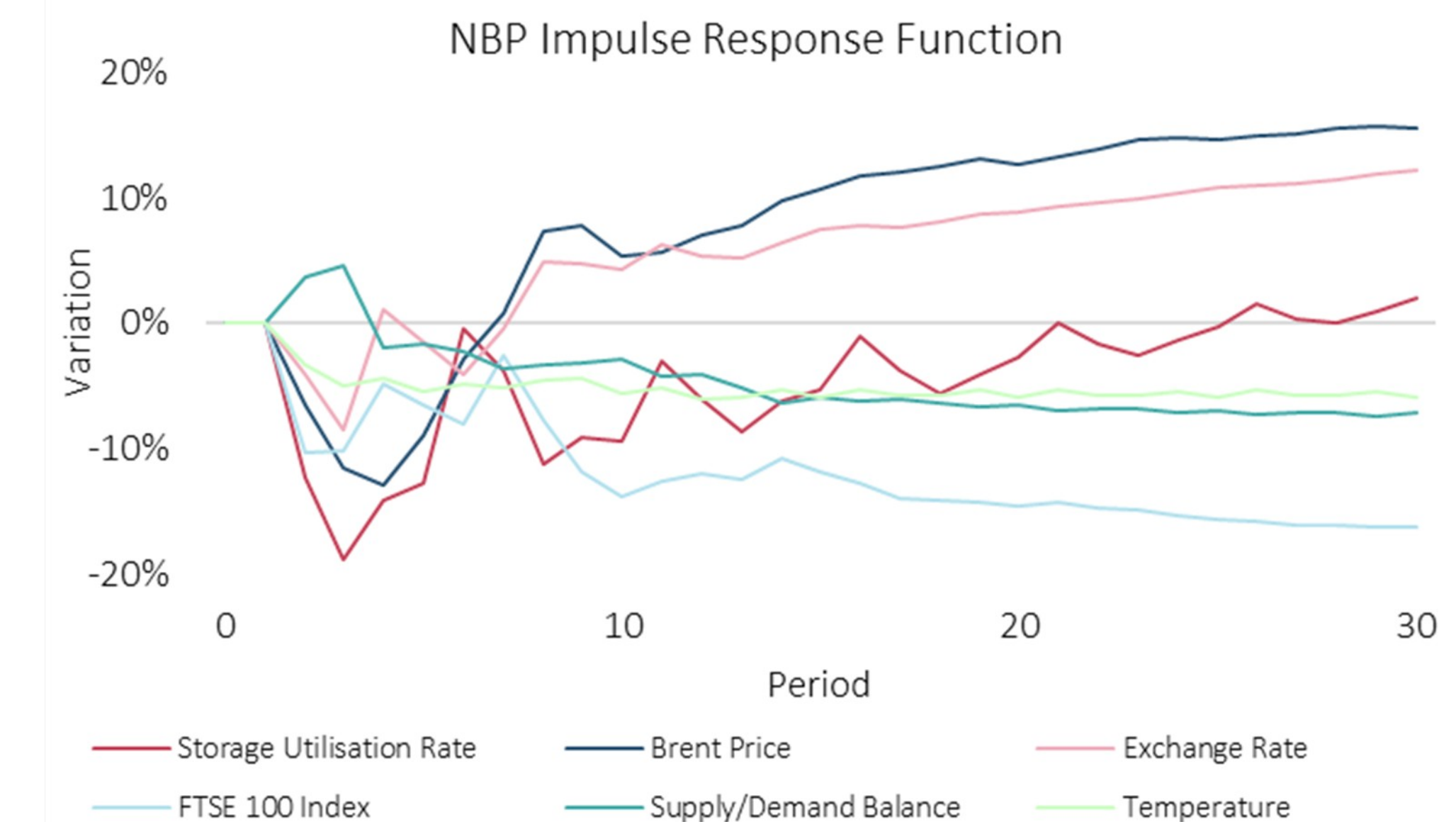
- The 2022 Russian invasion of Ukraine sparked concerns about the gas supply chain for the EU and UK which has raised the importance of storing gas for the 2022/23 winter in case of even more severe gas supply shortages.
- The extent of the relationship between storage levels and gas prices is clouded as well as a potentially differing impact on the UK and EU market due to their very differently scaled storage facilities.

Storage utilisation has a negative correlation with the gas prices for both seasons for the UK and EU. This agrees with preliminary forecasts as high inventory levels indicates higher gas supply leading to lower prices implying a negative relationship. UK values are higher than the EU possibly due to domestic drivers in the UK acting more prominently due to its more isolated market as well as the NBP price historically maintaining a seasonal premium over the TTF price.



## Other key takeaways

- There are minimal differences in the relationship between the storage utilisation rate and the gas price in winter compared to summer despite the differing



- To what degree are UK and EU storage utilisation rates a factor in their respective natural gas price benchmarks?
- Does storage levels affect the NBP and TTF price differently, including in winter vs summer?

The Granger-causality test showed that the storage utilisation has a causal relationship with both the NBP and TTF Price. The impulse response function shows how the NBP price responds to a shock to the storage utilisation rate by initially dipping but recovering quickly, supporting

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