



ENTSOG 7th TYNDP WS

Storage in Europe
March 21st, 2013

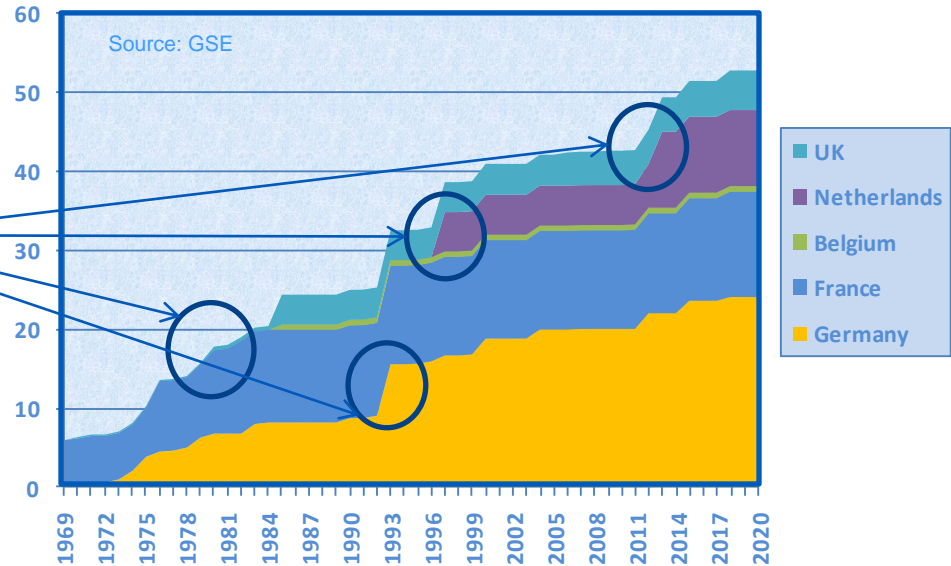
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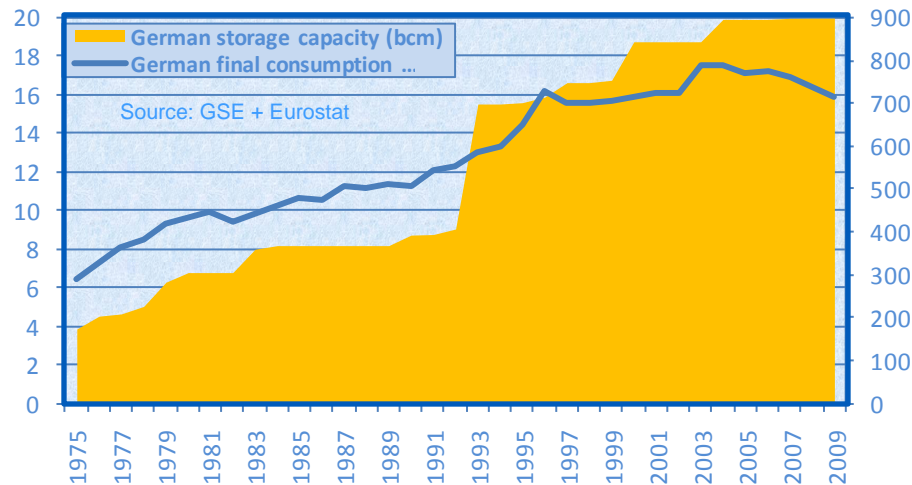
Several waves of investment lead to a storage overcapacity in Europe

Geology implied important increments of capacity

Construction of storages in NWE (bcm)

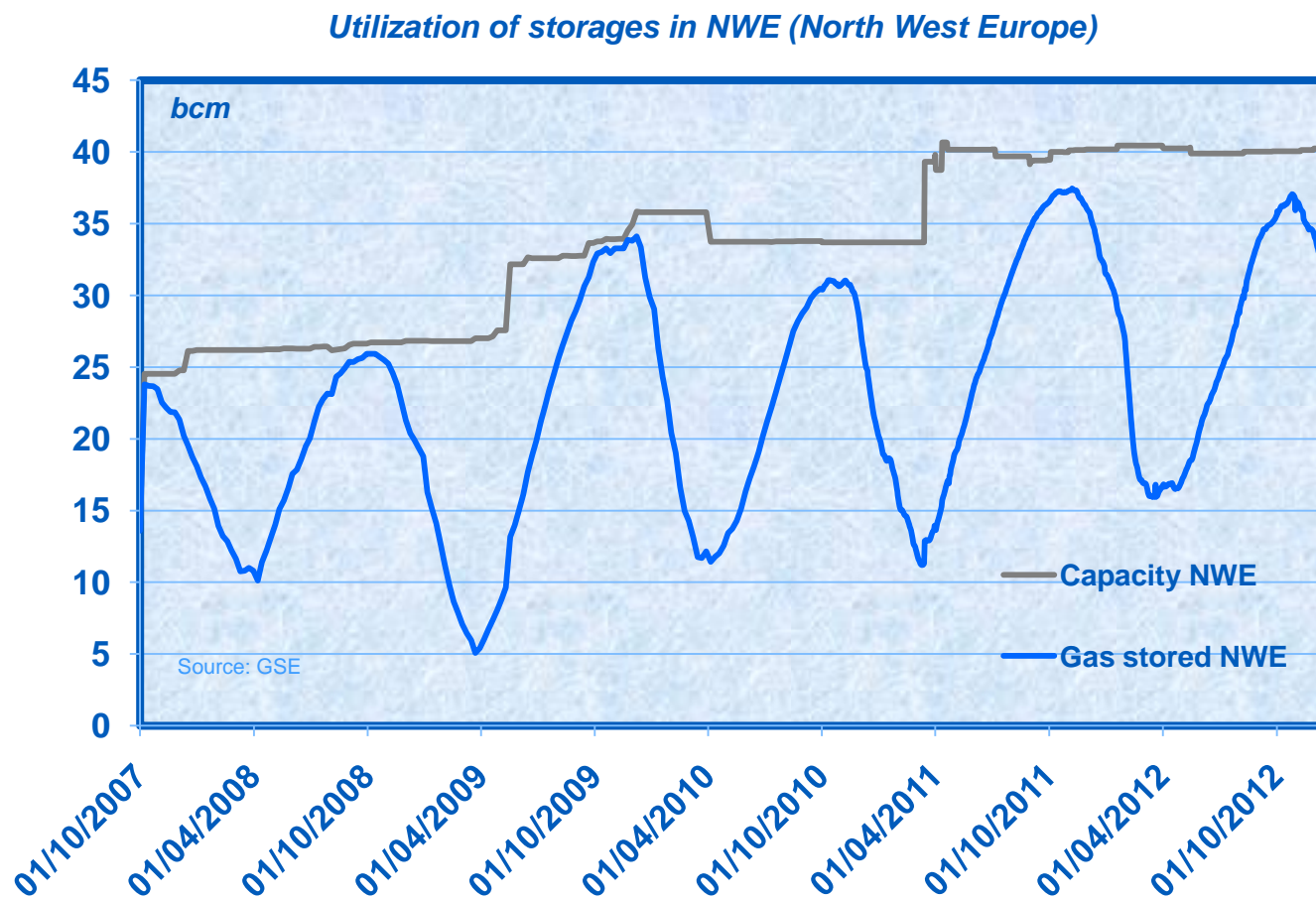


Comparison between final demand and storage volume evolution in Germany



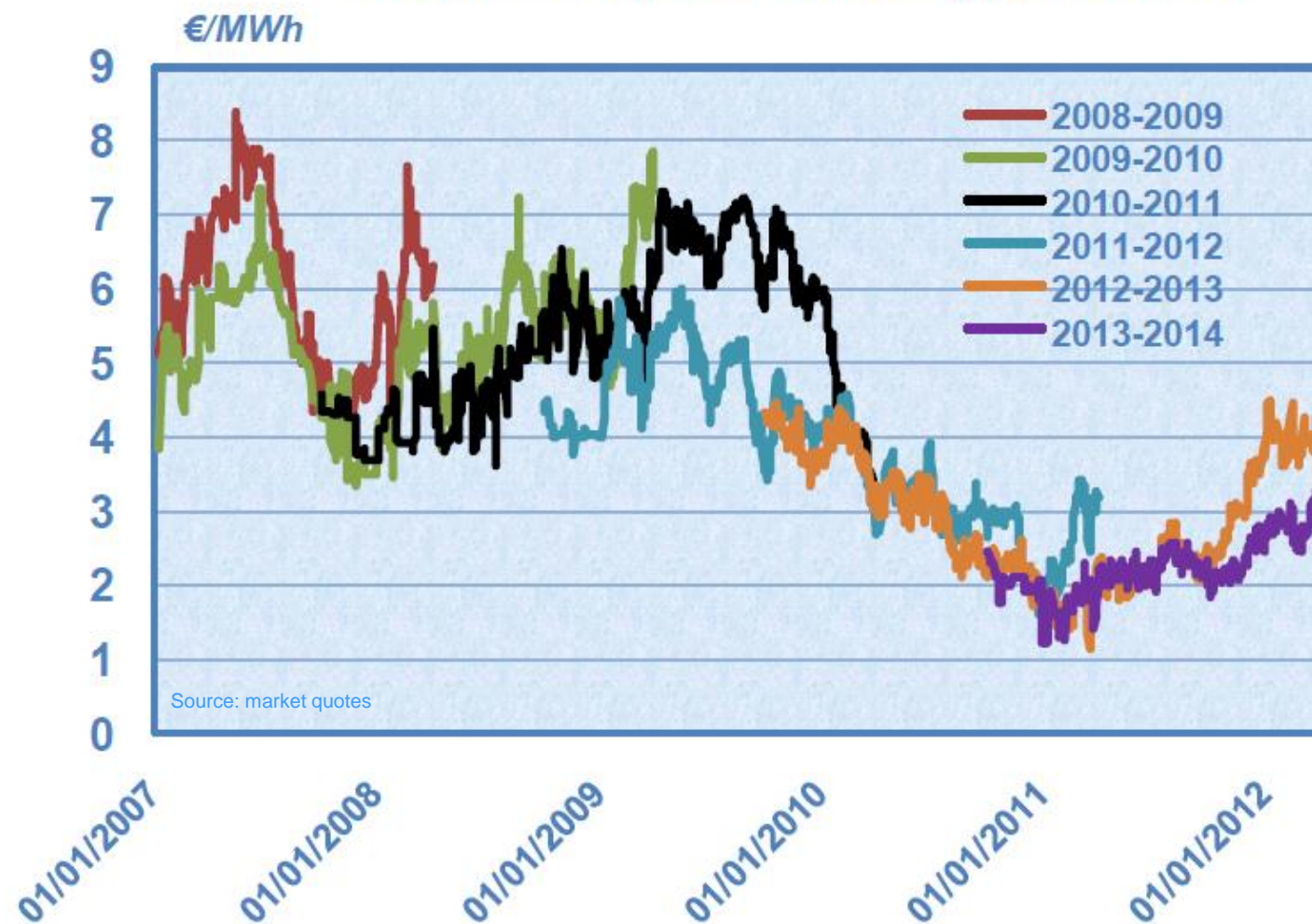
During the 90's, gas storage capacity doubled in Germany when final demand increased only by 40%.

This can be seen by a decrease of storage utilization

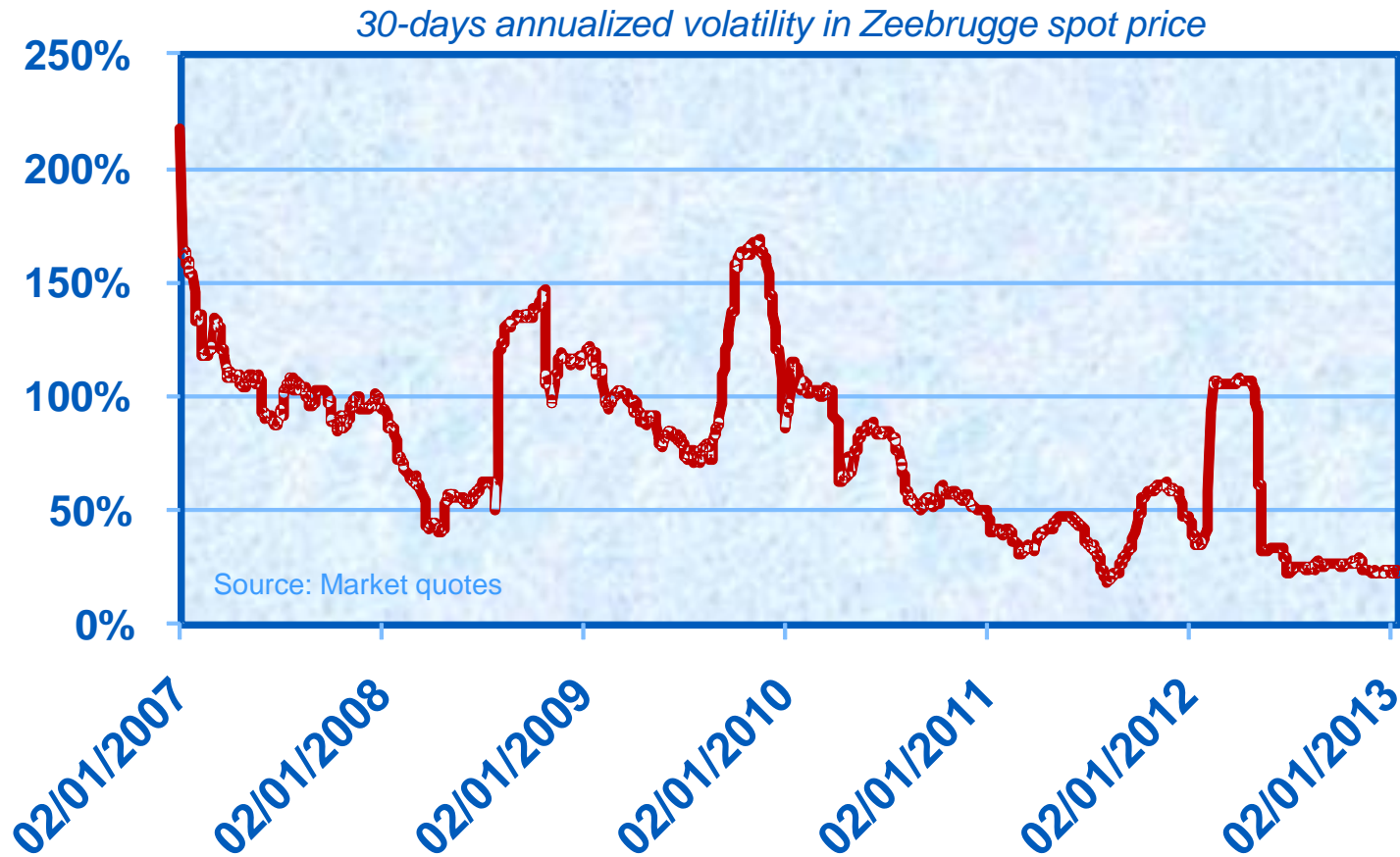


Hence, the summer/winter spreads have collapsed...

Historical Summer Winter Spreads on TTF

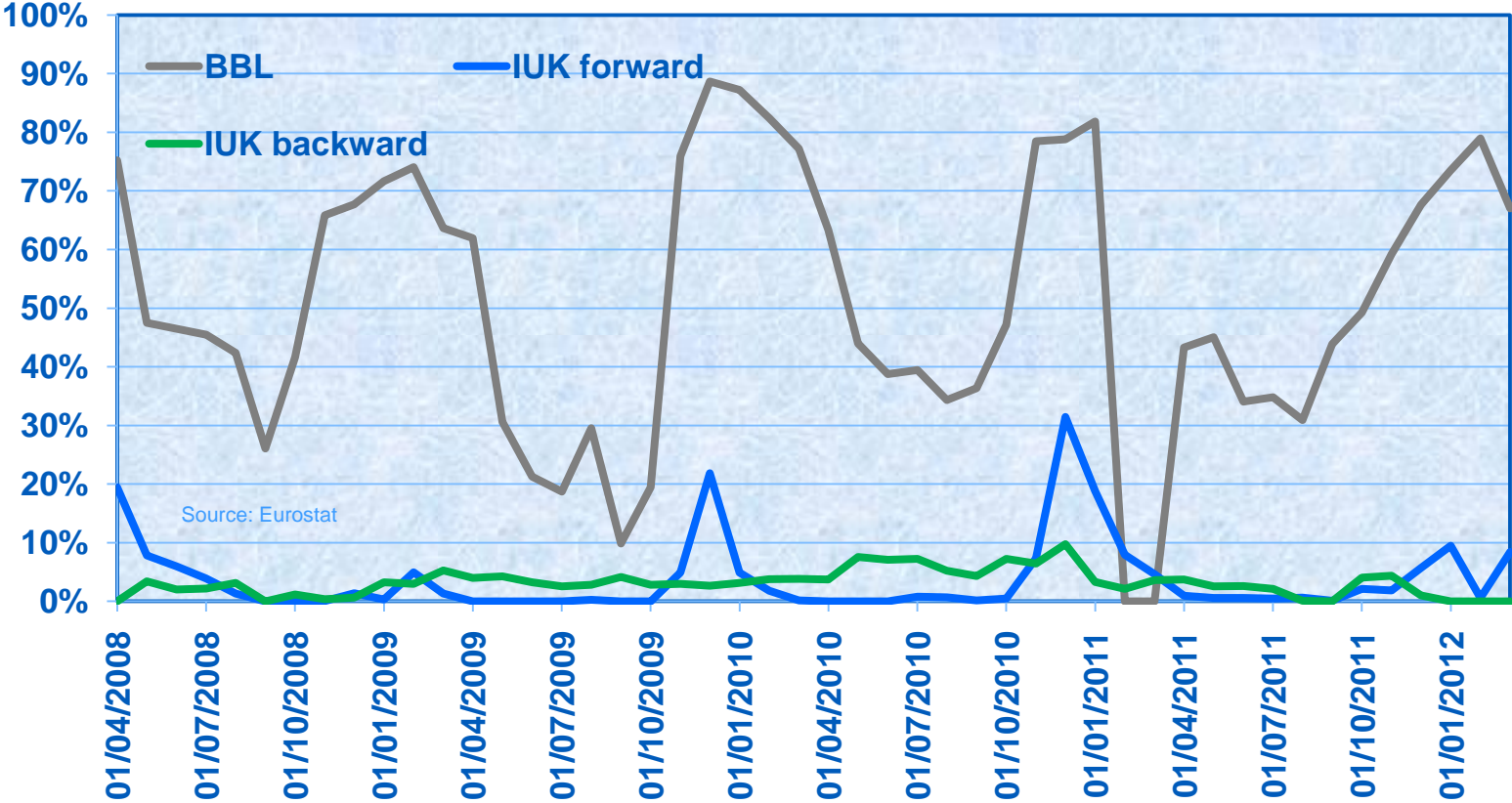


... and so have the volatility



Interconnection ensured modulation exchanges between countries, improving market efficiency

Monthly flows in IUK and BBL



There are a couple of uncertainties around the future

- **LNG availability at European regas terminals**
- **Evolution of pipeline import contracts flexibility**
- **Energy efficiency**
- **The impact of wind generation on gas demand**
- **Local gas production is declining (and it isn't anticipated to be offset by shale gas in Europe)**