Q1 2016: TTF volatility commentary by Timera Energy

An independent energy consultant, Timera Energy, quarterly comments on the EnergyStock Volatility Dashboard.

Chart 1: Evolution of TTF prices and historical prompt volatility

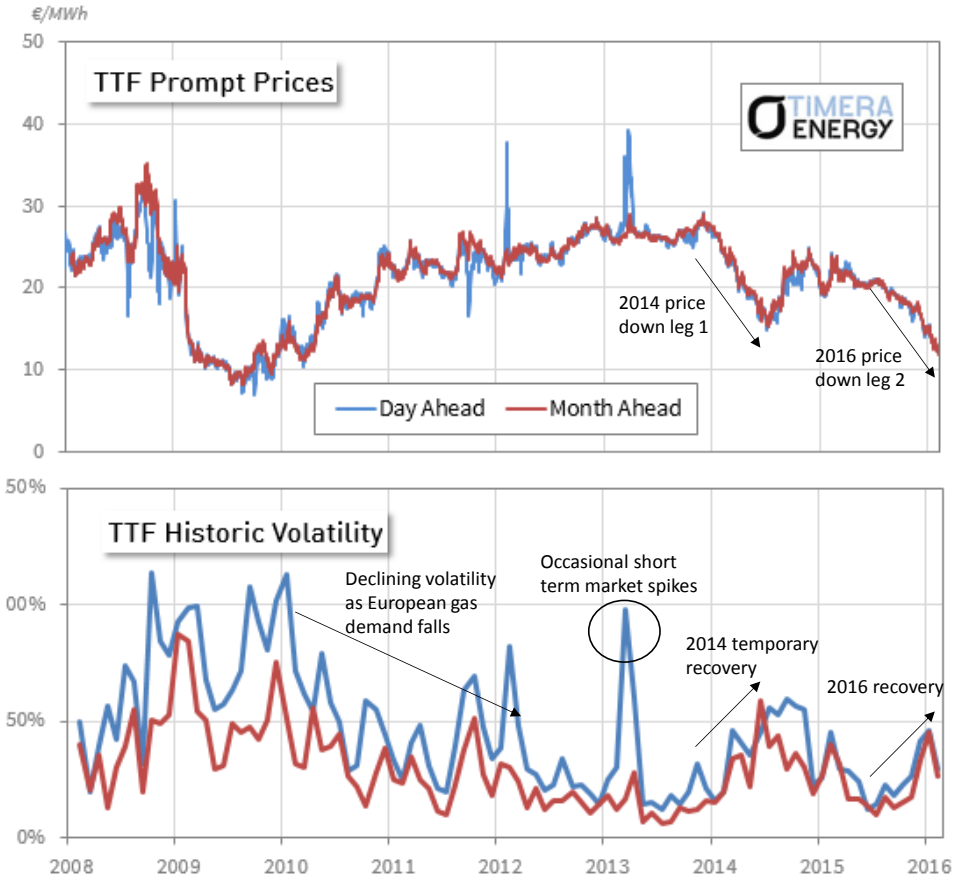


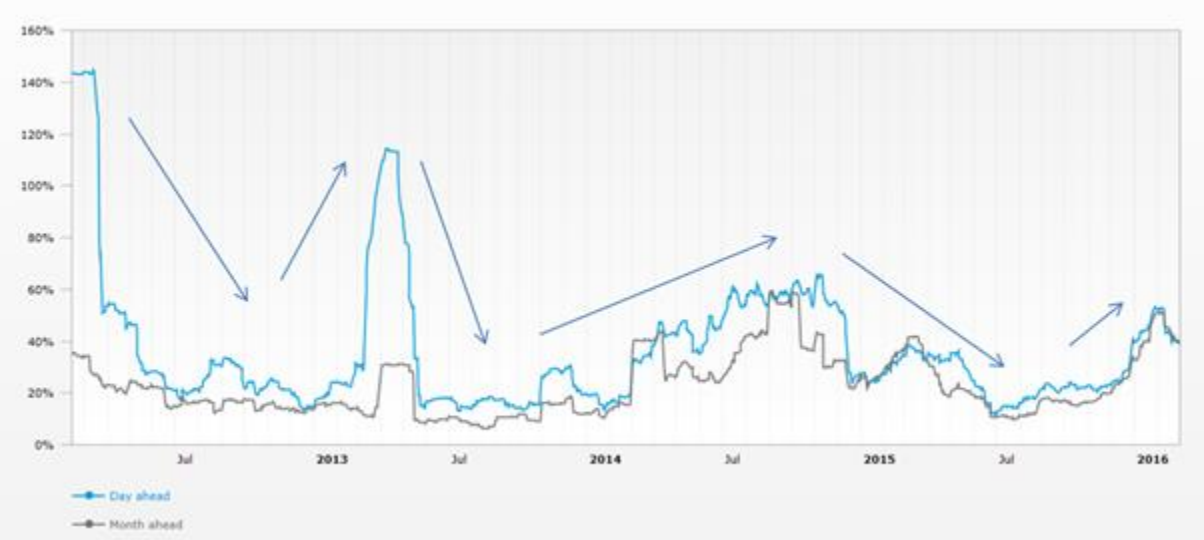
Chart 1 shows the relationship between the evolution of the TTF gas hub price and prompt historical gas price volatility. Both a month-ahead and day-ahead series are shown to illustrate the impact of different prompt time horizons. Prices are less volatile and trends more stable over the month-ahead horizon, given the absence of the shorter term price shocks that have an impact over the day-ahead horizon.

Spot gas price volatility is the key market price signal for shorter term gas supply flexibility. The bottom chart shows how spot volatility levels have declined this decade as an oversupply of flexibility has developed. The primary driver of this oversupply has been a sharp fall in European gas demand caused by:

1. Declining power sector gas demand as gas-fired CCGT plants have been displaced by coal and renewable generators
2. A post financial crisis decline in industrial gas demand

There have been some shorter periods of higher volatility that are illustrated via the EnergyStock volatility indices in Chart 2.

Chart 2: Evolution of TTF prices and historical prompt volatility



- Feb 2012: Temporary disruptions in Russian supply to Western Europe during over a very cold winter period saw spot prices and volatility spike at TTF (and other European hubs).
- Mar 2013: Another very cold period coincided with an outage on the IUK interconnector (UK to FR) and low LNG import levels to drive several weeks of high and volatile NBP prices, with TTF rising in sympathy.
- H1 2014: A sharp slump in European hub prices saw a recovery in TTF volatility over the first half of 2014 (see below for further details).
- 2016 -: Another sharp slump in hub prices is currently supporting rising TTF prompt volatility.

Despite these observations, a structural oversupply of flexibility has remained the dominant force so far this decade.

Headlines in 2016 have been focused on a sharp decline in gas hub prices. This is being driven by lower oil prices, robust LNG imports and an unusually large storage inventory overhang. But despite falling gas prices, prompt volatility levels have been rising. These conditions are consistent with market disequilibrium causing a rise in relative price fluctuations.

There are some interesting parallels between current gas market dynamics and those in 2014. Hub prices also declined sharply into the summer of 2014 causing a rise in prompt volatility. Again this was driven by relatively strong LNG import flows and higher storage inventories. But the recovery in volatility dissipated as hub prices stabilised and the conditions of flexibility oversupply reasserted themselves.

In 2016, falling hub prices may trigger conditions that can support a more structural recovery in prompt volatility. Power sector gas demand has recently begun to rise again as hub prices have declined, acting to increase CCGT load factors as coal plants are displaced from the merit order. The extent to which this continues and its impact on prompt volatility levels will be key factors to watch during 2016.

Written by Timera Energy