

# Introduction

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- ▶ **This PowerPoint presentation discusses the unbundling of the gas and oil prices.**
  - **For a further discussion of the unbundling, please refer to the PowerPoint presentation “*Gas market – the great unbundling*”**
    - **At *houmollerconsulting.dk*, you can download the document from the sub-page *Facts and findings*.**
- ▶ **The PowerPoint presentation is animated**
  - **It’s recommended to run the animation when viewing the presentation.**
- ▶ **On most computers, you can start the animation by pressing F5.**
  - **Now the presentation moves one step forward, when you press Page Down. It moves one step backward, when you press Page Up.**

# Gas prices in Europe



- ▶ **Historically, gas has often been traded by means of long-term contracts**
  - **Where the price of gas was linked to the price of oil.**
- ▶ **Long-term contracts and oil-linked pricing have a long history**
  - **When gas first began to be used a lot in the 1960s it was a substitute for home heating oil.**
  - **Hence, it made sense to anchor the gas price to the oil price.**
- ▶ **However, today oil is generally no substitute for gas.**
- ▶ **Increasingly, gas is spot traded.**
- ▶ **The severing of the linking makes sense**
  - **As there's no longer any correlation between the gas and the oil prices**
    - **As a case: the slides no. 4-7 compare the main oil index with gas exchange prices.**

# Gas and oil prices

**If you still want to tie your gas price to the oil price:**

**There is a bewildering array of oil indices, which can be used for the linking.**



**And in order to make it even more complex:**

**There may be a time delay, so your gas price this month is linked to an oil price from a previous month.**



**In order to cut a long history short, this presentation uses this oil index:**

**The monthly prices of the index *Europe Brent Spot Price FOB*.**

**No time delay is considered**

**Currency issues are not considered either.**

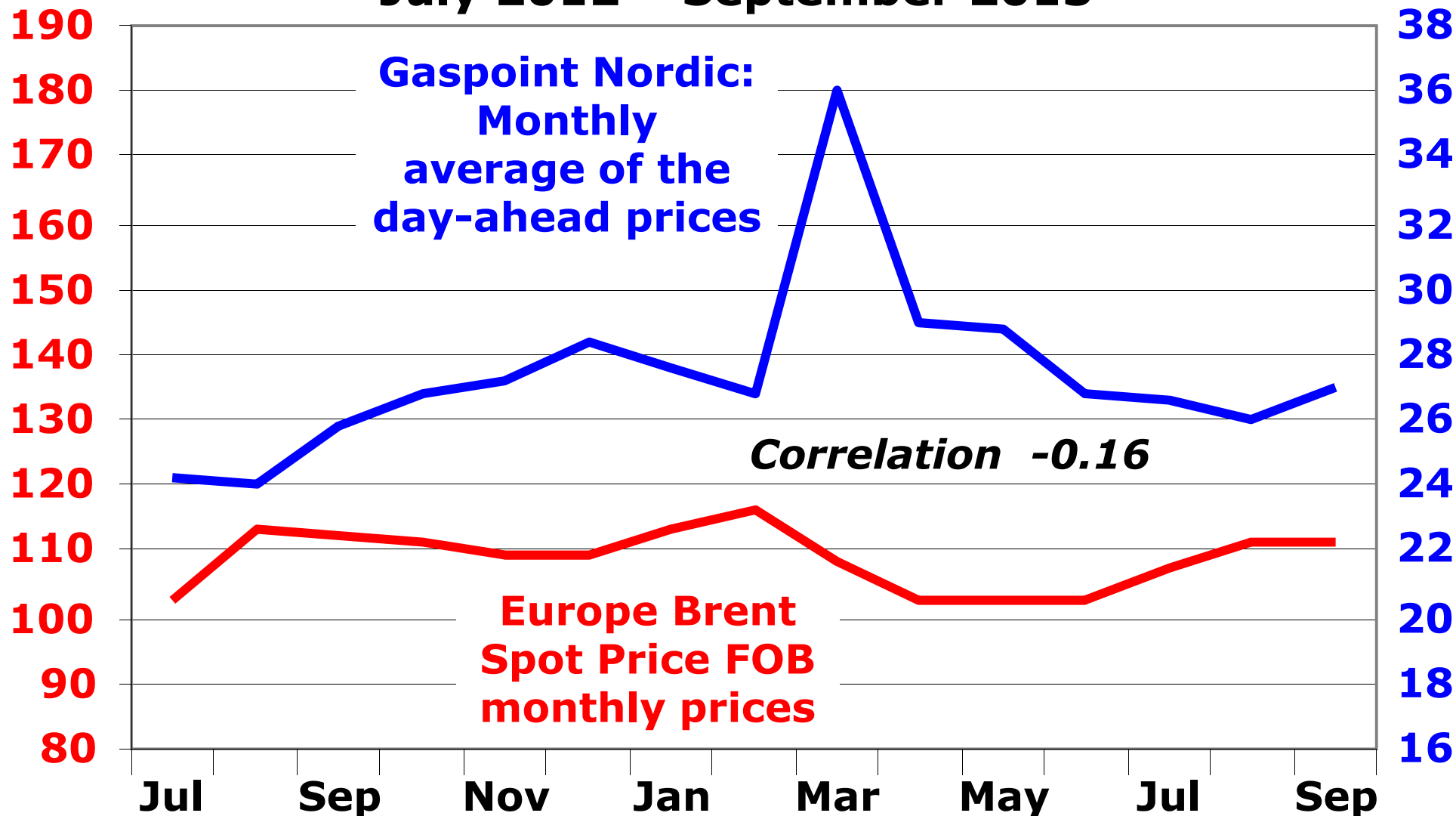
# Gaspoint Nordic (Denmark)

Former name: Nord Pool Gas

## Gas prices and oil prices July 2012 – September 2013

USD/barrel

EUR/MWh



Sources: [www.eia.gov](http://www.eia.gov) and [www.gaspointnordic.com](http://www.gaspointnordic.com)

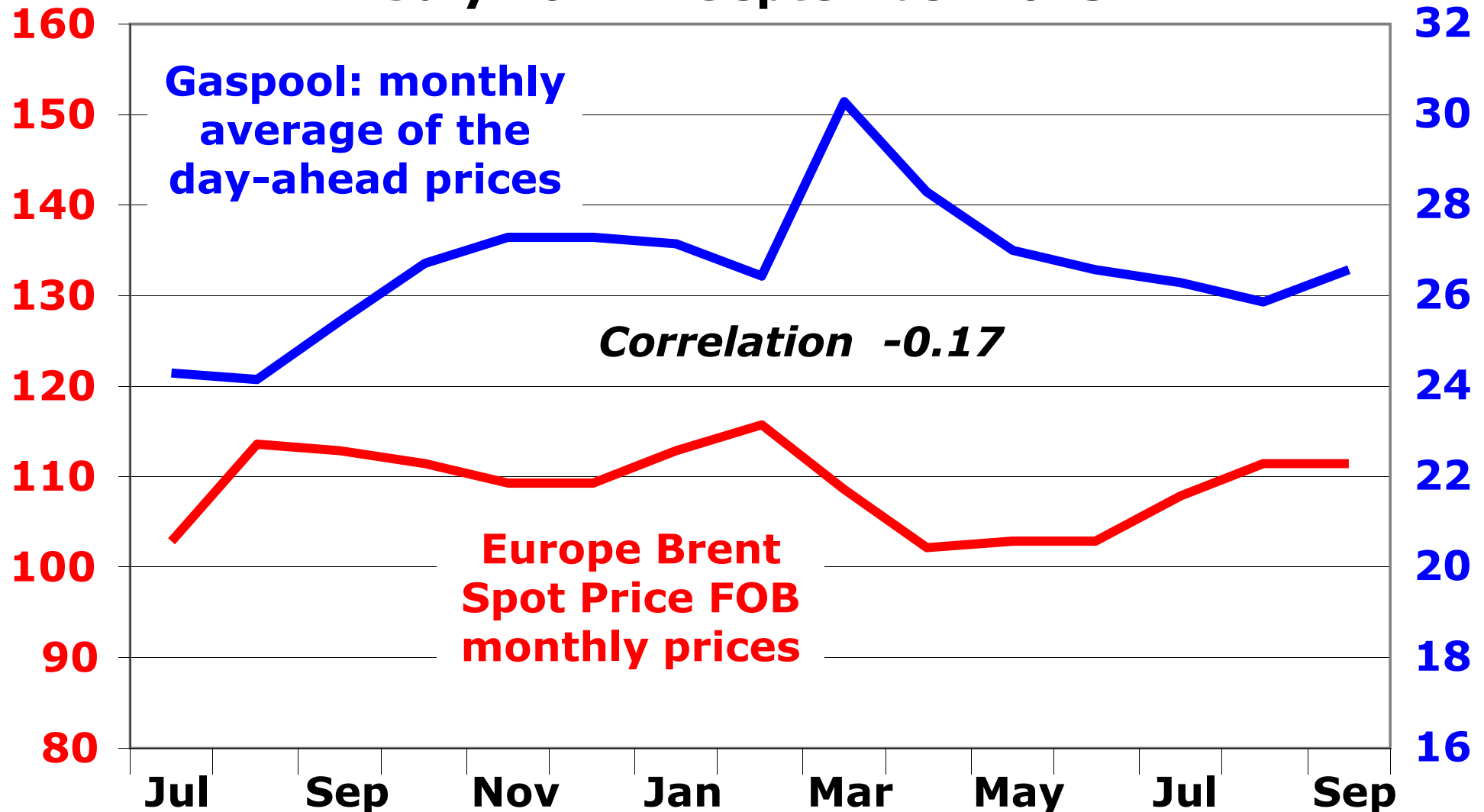
# Gaspool (Northern Germany)

## Gas prices and oil prices

July 2012 – September 2013

USD/barrel

EUR/MWh



Sources: [www.eia.gov](http://www.eia.gov) and [www.eex.de](http://www.eex.de)

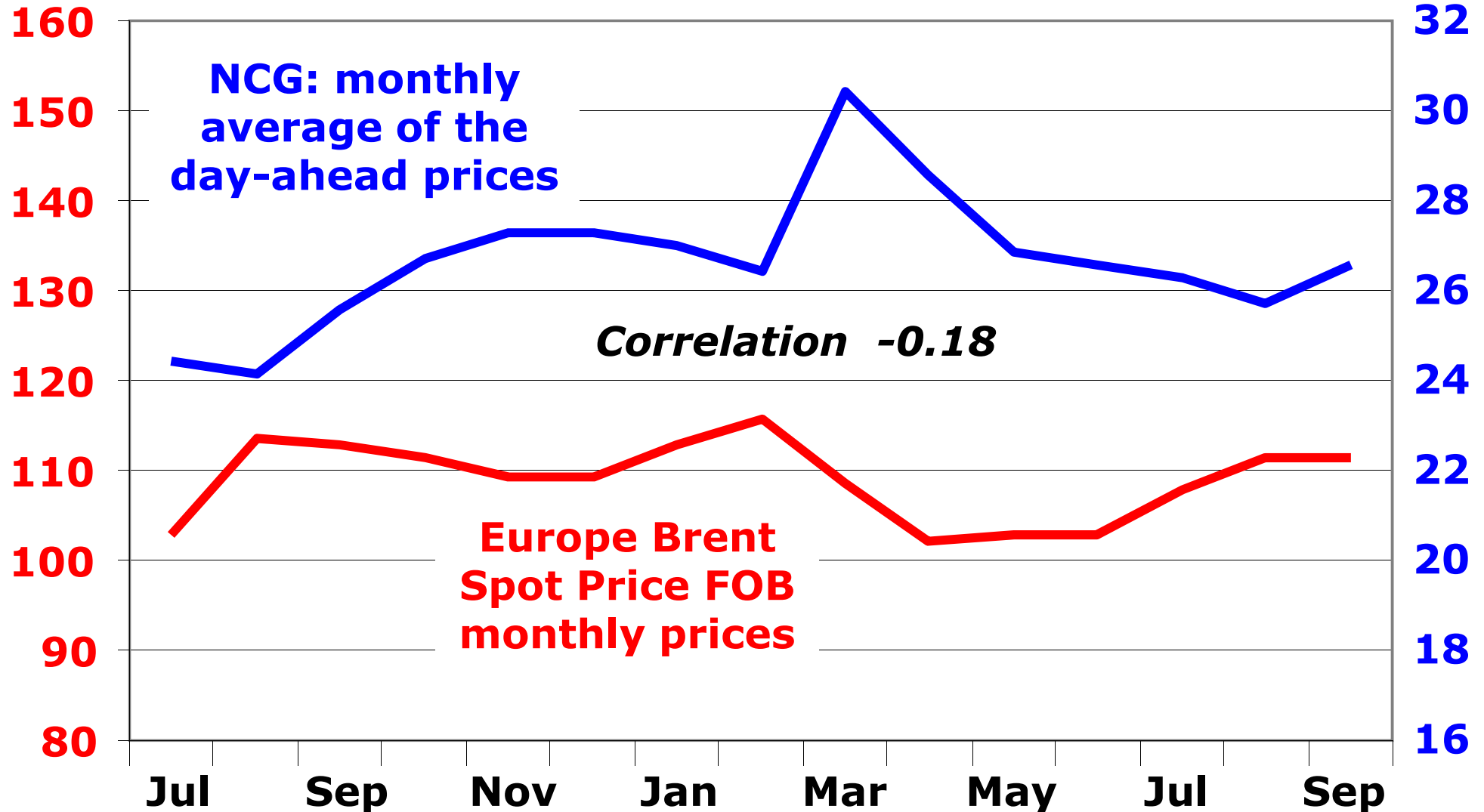
# NCG (Southern Germany)

## Gas prices and oil prices

USD/barrel

July 2012 – September 2013

EUR/MWh



Sources: [www.eia.gov](http://www.eia.gov) and [www.eex.de](http://www.eex.de)

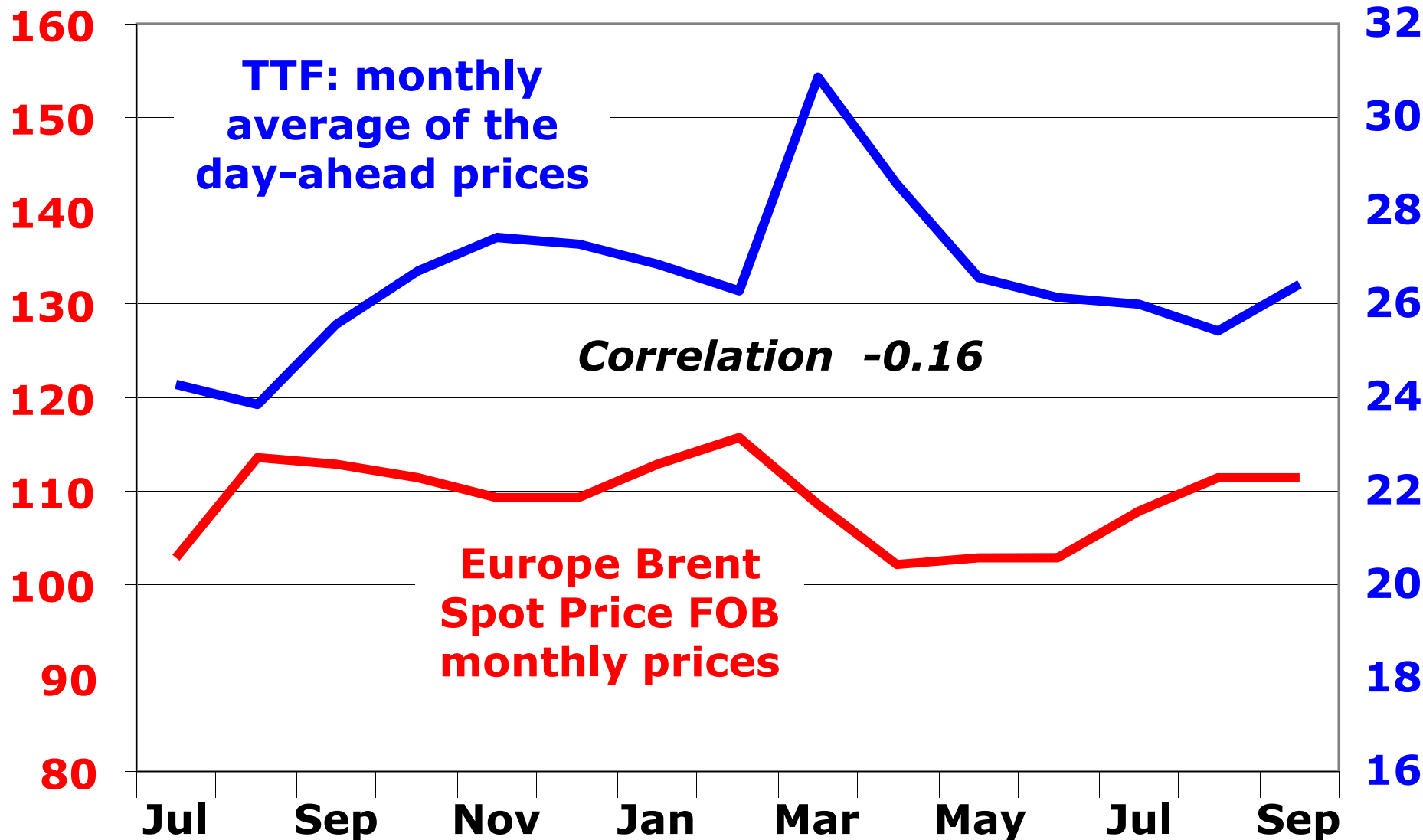
# TTF (Title Transfer Facility, the Netherlands)

## Gas prices and oil prices

USD/barrel

July 2012 – September 2013

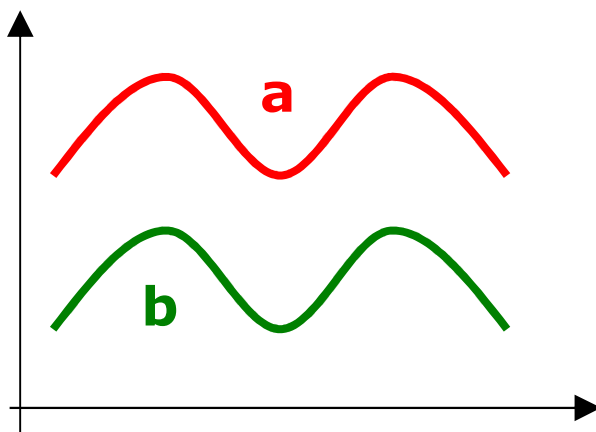
EUR/MWh



Sources: [www.eia.gov](http://www.eia.gov) and [www.eex.de](http://www.eex.de)

# Correlation coefficient

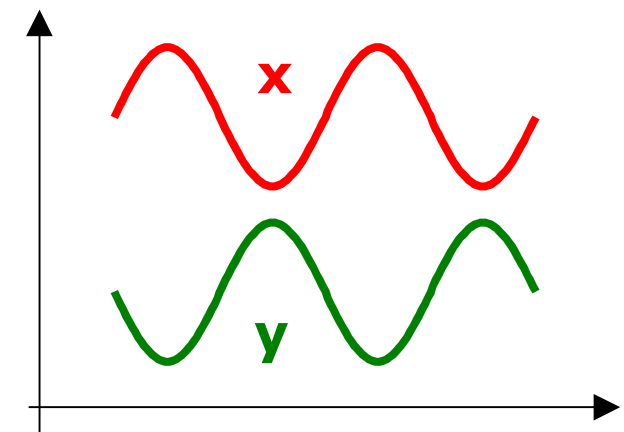
- ▶ For two sets of data, the correlation coefficient measures the degree, to which the two data sets move in parallel.
  - A correlation coefficient of 1 means the two data sets move in lockstep.
  - A correlation coefficient of 0 means no tendency at all for the two data sets to move in parallel.
  - A correlation coefficient of 0.5 indicates a very weak tendency to move in parallel.
  - A negative correlation coefficient indicates an inverse correlation.



**Example 1**

**Example 1:**  
 Correlation(a,b) = 1  
 as a and b move in lockstep.

**Example 2:**  
 Correlation(x,y) = -1  
 as x and y have perfect inverse correlation.



**Example 2**



# **Thank you for your attention!**

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