

# The effect of LNG on the relationship between UK and Continental European natural gas markets

EPRG Working Paper 1225

Cambridge Working Paper in Economics 1253

**Philipp Koenig**

**Abstract** The long-term relationship between the prices of natural gas in the United Kingdom and oil-indexed natural gas in the North West European market is the result of seasonal arbitrage. This paper empirically investigates this long-term relationship and offers two main contributions: (i) To the best knowledge of the author, this is the first study to take into account important UK spot gas market drivers such as seasonality, temperature and gas storage injection/withdrawal behaviour when examining the structural relationship between UK and Continental European markets. (ii) The effect of UK import capacity extensions since 2005, through both pipeline and LNG regasification capacity, on this long-term relationship will be analyzed. The results suggest that there is a significant structural break in 2006 when the two markets decouple and move from an old to a new, much weaker, long-term relationship. From the end of 2008 onwards, the time at which UK LNG imports started to increase, this long-term relationship appears to break down altogether.

**Keywords** LNG; Natural Gas; Oil-indexation; Cointegration; Structural Breaks; Unobserved Components Model

**JEL Classification** Q41, Q47, G10

Contact pk304@cam.ac.uk  
Publication November, 2012  
Financial Support ESRC (1+3) grant