

Natural Gas Market Globalization Revisited

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Abstract

The global natural gas market seems to be at a crossroads regarding its future development. On the one hand, transition towards sustainable decarbonised economies worldwide, and on the other increasing energy demand in some parts of the world. Motivated by recent developments in the natural gas industry that has emerged as the frontrunner in discussions about industrial development and "low carbon" innovation, we revisit the contradictory hypotheses raised a decade ago about the globalization of the natural gas market.

We investigate market integration within the context of the Law of One Price and cointegration between import natural gas prices. This is performed by means of an unrestricted error correction model, which is modified to capture the underlying price relations on different ranges of the full conditional distribution, thus shedding light on periods of limited or excess supply flexibility. Last, we carefully consider structural breaks and parameter instabilities that may arise from recent market reforms, such as the shale gas developments in the U.S. and the new stringent environmental policies in China.